

A Complete Bibliography of Publications in the *SIAM Journal on Applied Mathematics*: 2020–2029

Nelson H. F. Beebe
University of Utah
Department of Mathematics, 110 LCB
155 S 1400 E RM 233
Salt Lake City, UT 84112-0090
USA

Tel: +1 801 581 5254

FAX: +1 801 581 4148

E-mail: beebe@math.utah.edu, beebe@acm.org,
beebe@computer.org (Internet)

WWW URL: <http://www.math.utah.edu/~beebe/>

04 June 2022

Version 1.06

Title word cross-reference

K [58]. k_{eff} [164]. *M* [48].

-Core [58]. **-Polygons** [48].

Absorbing [260, 237]. **Absorption** [37].

Abstract [3, 133]. **Acceleration** [128, 165].

Accounting [128]. **Accurate** [119].

Acoustic [234, 187, 114, 260, 237, 269, 103].

Acoustics [77]. **Across** [163]. **Action** [87].

Active [182]. **Adaptation** [109]. **Adapting**

[258]. **Adaptive** [30, 55]. **Adder** [60].

Adding [79, 62]. **Adhesion** [20]. **Aedes**

[44]. **Aegypti** [44]. **Affect** [98]. **After** [251].

Age [17]. **Age-Structured** [17]. **Agents**

[148]. **Aggregation** [177]. **Aging** [85].

Albopictus [44]. **Algorithm** [119]. **Allee**

[139, 82]. **Allocation** [171]. **Alloys** [112].

Along [215]. **Ambient** [156].

Amplification [95]. **Amplitude** [111].

Anaerobic [178]. **Analysis**

[95, 42, 238, 186, 46, 26, 8, 138, 197, 56, 13,

77, 253, 183, 174, 235, 150, 185, 37, 153, 39,

178, 35, 89, 265, 182, 81, 152]. **Anchoring**

[104]. **Animal** [117]. **Anisotropic**

[190, 110, 65]. **Anisotropy** [113].

Application [255]. **Applications**

[44, 264, 81]. **Applied** [36]. **Approach**

[162, 53, 64, 215, 268, 225, 212].

Approximate [236, 1, 91, 103].

Approximating [9]. **Approximation** [216].

Arbitrary [5]. **Architecture** [49]. **Arising**

[42, 201]. **Array** [77, 94]. **Artificial** [240].

Aspects [263]. **Assessment** [260].

Asymptomatic [270]. **Asymptotic** [52, 213, 57, 201, 138, 220, 50, 134, 265, 154, 90]. **Asymptotically** [171]. **Asymptotics** [6, 16, 102]. **Atomistic** [262]. **Attenuation** [142]. **Attractors** [106]. **Autocatalytic** [194]. **Averaging** [255]. **Avoiding** [214]. **Aw** [83]. **Aw-Rasclé** [83].

Bacterial [176]. **Baking** [197]. **Balance** [175]. **Balanced** [12]. **Basal** [27]. **Based** [162, 161, 64, 13, 212, 107]. **Basic** [57, 90]. **Basins** [141]. **Bed** [172, 97]. **Bee** [40]. **Before** [251]. **Behavior** [53]. **between** [194, 143]. **beyond** [52]. **Bifurcation** [62, 81]. **Biharmonic** [231]. **Bikerman** [92]. **Bimodal** [62]. **Binomial** [61]. **Biofilm** [78]. **Biological** [116, 177]. **Biphasic** [95]. **Blade** [235]. **Blocking** [97]. **Blowup** [111]. **Bodies** [182]. **Body** [215, 157]. **Bonded** [33]. **Bone** [271]. **Boreholes** [15]. **Bose** [254]. **Bound** [41]. **Boundaries** [107]. **Boundary** [210, 93, 73, 174, 168, 260, 237, 51, 196]. **Bounded** [20, 128]. **Boundedness** [205]. **Bounds** [100, 5]. **Brain** [169]. **Branch** [251]. **Break** [6]. **Breakup** [126]. **Bubble** [16, 4]. **Bubbles** [245]. **Building** [79]. **Bulk** [69]. **Bump** [14]. **Burgers** [232].

C [160]. **C-Looping** [160]. **Cable** [144]. **Cahn** [104, 99, 265]. **Capillary** [141]. **Capture** [161]. **Case** [71]. **Cavitating** [268]. **Cavitation** [9]. **Cavity** [9]. **Cell** [43, 27, 61, 154, 7, 246]. **Cells** [207, 32]. **Cellular** [60]. **Centrality** [239]. **Certain** [101]. **Change** [117]. **Changing** [40, 109]. **Channels** [134]. **Characterization** [12, 190]. **Charge** [45, 86, 151]. **Charge-Group** [151]. **Chemical** [79, 78]. **Chemistry** [130]. **Chemostat** [267]. **Chemotactic** [40]. **Chemotherapy** [169]. **Chirality** [209]. **Circular** [179]. **Class** [42, 219, 185, 205]. **Classical** [239, 86]. **Classifying** [113]. **Climate** [117]. **Closure** [216]. **Cloud** [34]. **Co** [122]. **Co-Flow** [122].

Coarse [266]. **Coarse-Grained** [266]. **Coated** [121, 65]. **Coefficient** [40, 248, 208, 124]. **Coefficients** [86]. **Collisions** [214]. **Colloidal** [23]. **Colonies** [40, 192]. **Column** [37]. **Comb** [38]. **Combustion** [47]. **Communication** [156]. **Community** [64, 173, 58]. **Compartmental** [43]. **Competition** [230, 193, 44, 204]. **Competition-Diffusion** [193]. **Competitors** [44]. **Complex** [188, 12, 232, 241, 89]. **Complex-Balanced** [12]. **Complex-Frequency** [89]. **Component** [46]. **Computation** [100, 105]. **Computed** [88]. **Condensates** [254]. **Condensation** [198]. **Condition** [196]. **Conditional** [120]. **Conditions** [104, 73, 260]. **Conductivity** [65]. **Conductors** [73]. **Connected** [249, 37]. **Conservation** [210]. **Consistency** [25]. **Constant** [65]. **Constraint** [27]. **Construction** [260]. **Contact** [21, 258, 149]. **Contagion** [185]. **Continuum** [212, 51, 41]. **Contour** [221]. **Contrast** [220, 247]. **Control** [66, 43, 129, 127, 149, 81]. **Control-Theoretic** [66]. **Controlling** [129]. **Convergence** [201, 9]. **Convergent** [134]. **Convexity** [166]. **Convolutional** [115]. **Core** [65, 58]. **Correlations** [195]. **Cortex** [49]. **Coulomb** [195]. **Coupled** [102, 69]. **Coupling** [107]. **Crime** [66]. **Critical** [71]. **Criticality** [198]. **Cross** [11]. **Cross-Diffusion** [11]. **Crowd** [53]. **Cryopreservation** [32]. **Crystal** [242]. **Crystals** [93, 135, 151]. **Culling** [149]. **Culture** [37]. **Current** [141, 67, 45]. **Curvature** [19]. **Curves** [263, 234]. **Cyanobacteria** [56]. **Cyclic** [199]. **Cytoneme** [161]. **Cytoneme-Based** [161].

Dam [6]. **Dam-Break** [6]. **Damped** [202]. **Darwin** [191]. **Data** [61, 103]. **Deal** [71]. **Debye** [92]. **Decaying** [28]. **Decomposition** [213, 131]. **Deep** [146, 97]. **Deep-Frying** [146]. **Defect** [242]. **Defects**

[261]. **Deformation** [7, 217]. **Degenerate** [62]. **Delay** [199, 201, 227]. **Delayed** [68]. **Delivery** [85]. **Delocalization** [254]. **Dendritic** [43, 266]. **Dense** [223, 4]. **Density** [27]. **Dependent** [229, 5, 165]. **Depth** [5]. **Depth-Dependent** [5]. **Derivation** [246]. **Derivatives** [175]. **Described** [191]. **Description** [246]. **Destabilization** [106]. **Detail** [144]. **Detailed** [12]. **Detailed-Balanced** [12]. **Detecting** [222]. **Detection** [64]. **Determinacy** [82]. **Determining** [180]. **Developing** [32]. **Development** [255, 251]. **Dewetting** [75]. **Diapause** [68]. **Dielectric** [209, 21]. **Difference** [36]. **Differentiability** [3, 133]. **Differential** [22, 199, 201, 34]. **Differentiation** [180]. **Diffraction** [123, 269]. **Diffusing** [102]. **Diffusion** [68, 125, 11, 193, 26, 236, 136, 86, 102, 267, 69, 179, 200, 130, 205, 182, 169, 19]. **Diffusive** [120, 127, 227]. **Digestion** [178]. **Dimension** [5]. **Dimensional** [67, 38, 138, 76, 219, 69, 62, 89, 200, 196]. **Dimensions** [166, 144, 75, 159]. **Direct** [216]. **Directed** [139]. **Directional** [180, 161]. **Disc** [33]. **Disconnection** [51]. **Discourse** [211]. **Discrete** [218, 117, 205]. **Discrete-Time** [218, 117]. **Discretization** [219]. **Disease** [173, 81]. **Diseases** [270]. **Disk** [179]. **Dislocation** [107]. **Dislocations** [112]. **Disorder** [254]. **Dispersal** [155, 98]. **Dispersion** [186]. **Displacement** [54]. **Distinguishability** [5]. **Distributed** [199]. **Distribution** [183, 198]. **DNA** [95]. **Does** [98]. **Domain** [162]. **Domains** [2, 181, 20]. **Dough** [146]. **Down** [8]. **Drift** [200]. **Drift-Diffusion** [200]. **Drive** [38]. **Driven** [232, 158, 8, 266, 117, 19]. **Drop** [217]. **Droplet** [126]. **Drug** [189, 85]. **Drug-Eluting** [189]. **Duct** [237]. **Due** [47]. **Dynamical** [215]. **Dynamics** [53, 255, 125, 95, 192, 138, 211, 56, 194, 59, 55, 256, 149, 71, 267, 165, 69, 227, 51]. **Dynamo** [100]. **Ecological** [230]. **Eddy** [67]. **Effect** [139, 116, 85, 82, 267, 126]. **Effective** [17]. **Effects** [270, 120, 59, 84, 244]. **Efficient** [119, 12, 271]. **Eigenfunctions** [240]. **Eigenvalue** [42, 73, 89]. **Eigenvalues** [100, 228, 264]. **Einstein** [254]. **Elastic** [33, 190, 245, 50, 7]. **Elasticity** [228]. **Elastodynamics** [224]. **Elastography** [1, 91]. **Electric** [135]. **Electric-Field-Induced** [135]. **Electrical** [258, 5, 25]. **Electro** [21]. **Electro-Wetting** [21]. **Electroanalytical** [130]. **Electrode** [258, 197]. **Electrodiffusive** [163]. **Electrohydrodynamics** [217]. **Electromagnetic** [209, 240, 45, 121]. **Electrons** [191]. **Electrostatic** [38]. **Electrostatics** [151]. **Element** [235]. **Elementary** [243]. **Elimination** [43]. **Eluting** [189]. **Embedded** [185]. **Embryonic** [160]. **Emergence** [140]. **Emission** [124]. **Endemic** [218]. **Energy** [104, 28, 268, 96]. **Engineering** [172]. **Enhanced** [163]. **Entropy** [112]. **Environment** [57, 90]. **Environmental** [66]. **Environments** [230, 106, 109, 246]. **Epidemic** [57, 90, 206]. **Epidemics** [129]. **Epidemiology** [201]. **Epidermis** [27]. **Equation** [257, 119, 144, 22, 199, 224, 164, 232, 108, 170, 248, 208, 124, 191, 92, 142, 265, 48]. **Equations** [229, 199, 201, 24, 34, 13, 187, 3, 133, 191, 216, 134, 36]. **Equilibria** [76]. **Equilibrium** [10]. **Erratum** [90, 181, 91, 133]. **Error** [259]. **Escape** [43]. **Estimates** [259]. **Estimation** [137]. **Euler** [111]. **Evolution** [125, 186, 3, 133, 48]. **Evolving** [23]. **Exact** [6, 97, 134]. **Excitation** [41]. **Exclusion** [14]. **Exercise** [23]. **Existence** [125, 105, 138]. **Expansions** [52, 220]. **Exponential** [16, 184]. **Extended** [45]. **Extinction** [218].

Factorization [103]. **Failure** [241]. **Family** [263, 184]. **Fano** [94]. **Far** [121]. **Far-Field** [121]. **Fast** [255, 191, 120]. **Ferroelectric** [72]. **Fibrin** [251]. **Fibrous** [246]. **Field** [53, 100, 72, 116, 135, 121, 129, 28, 65, 250, 69, 212, 35, 103]. **Fields** [226]. **Filament** [145, 48]. **Film** [8]. **Films** [72]. **Filter** [147]. **Filtration** [272, 97]. **Fingering** [33]. **Finite** [97]. **First** [73, 120]. **Fixed** [172, 182]. **Fixed-Bed** [172]. **Flocks** [214]. **Flow** [167, 232, 8, 122, 132, 249, 111, 128, 28, 237, 252, 126, 4, 7]. **Flows** [213]. **Fluctuations** [170]. **Fluid** [210, 233, 253, 110, 28]. **Fluid-Particle** [28]. **Flux** [216]. **Follicles** [255]. **Formal** [186]. **Formation** [214, 158, 93, 47]. **Formed** [113]. **Formulation** [45, 107]. **Formulations** [72]. **Foundation** [61]. **Fractional** [149, 265]. **Fractional-Order** [149]. **Fracture** [262]. **Fractures** [96]. **Fragmentation** [127]. **Framework** [259, 262, 32]. **Free** [210, 155]. **Free-Boundary** [210]. **Freezing** [32]. **Frequency** [89]. **Front** [186, 122]. **Fronts** [8, 102]. **Frying** [146]. **Full** [162, 119]. **Functional** [104, 49]. **Functions** [207].

Gap [17, 219]. **Gardner** [224]. **Gathering** [148]. **Gelation** [251]. **General** [155, 63, 65, 39, 109]. **Generalized** [83, 170, 92, 58, 89, 196, 81]. **Generation** [189]. **Generational** [164]. **Generations** [41]. **Geological** [141]. **Geometric** [33]. **Geometrical** [240]. **Geometry** [108, 134]. **Geothermal** [15]. **Gierer** [138]. **Glioblastoma** [11]. **Global** [30]. **Glucagon** [238]. **Glucose** [238]. **Goldbeter** [52]. **Gradient** [216]. **Grain** [51, 107]. **Grained** [266]. **Graph** [174, 184]. **Graphical** [272]. **Graphons** [223]. **Graphs** [223]. **Gravity** [141]. **Green** [119]. **Grid** [207]. **Ground** [254]. **Group** [151]. **Growth** [68, 11, 137, 47, 168, 169].

Habitat [193, 117]. **Hairs** [183]. **Handling** [80]. **Haptotaxis** [74]. **Hard** [195]. **Hard-sphere** [195]. **Harmonic** [15, 121, 234, 260, 41]. **Having** [65]. **Heart** [160]. **Hele** [16]. **Helioseismology** [119]. **Helmholtz** [77, 142]. **Heterogeneity** [155, 140]. **Heterogeneous** [57, 90, 136, 260]. **Hidden** [50]. **Hierarchical** [59]. **High** [220, 219, 112, 247]. **High-Contrast** [220, 247]. **High-Dimensional** [219]. **Higher** [3, 133]. **Highway** [31]. **Hilliard** [104, 265]. **HIV** [59]. **Holling** [80]. **Homogenization** [167, 233, 247]. **Homogenized** [147]. **Honey** [40]. **Howie** [191]. **Hückel** [92]. **Human** [84]. **Hunger** [118]. **Hybrid** [117]. **Hydrodynamics** [145]. **Hyperbolic** [108]. **Hypersingular** [101]. **Hypo-coercivity** [55]. **Hysteresis** [105].

Ice [188]. **Ideal** [155]. **Ignition** [122]. **II** [133, 3]. **III** [164]. **Imaging** [257]. **Impact** [68, 173]. **Impedance** [258, 5, 228, 159, 196, 25]. **Implementation** [152]. **Impulsive** [26, 81]. **In-Plane** [222]. **Inactivation** [120]. **Incidence** [39]. **Including** [259]. **Inclusion** [179]. **Inclusions** [110, 65]. **Incompatible** [152]. **Induced** [135, 165]. **Inertia** [175]. **Infection** [98]. **Infections** [176, 270]. **Infectious** [270]. **Infectivity** [206]. **Infinite** [70, 268]. **Infinitely** [87]. **Inflated** [61]. **Inhomogeneous** [190, 114, 200]. **Insect** [192, 152]. **Insoluble** [232]. **Instabilities** [135]. **Insulin** [238]. **Integral** [208]. **Integrals** [221]. **Interacting** [263, 24, 15]. **Interaction** [28, 96]. **Interactions** [118, 110]. **Interdigitated** [38]. **Interface** [162, 21, 75, 265]. **Interfaces** [248]. **Interplay** [33]. **Intimate** [194]. **Invasion** [173, 44]. **Inverse** [202, 67, 42, 2, 181, 121, 18, 3, 208, 114, 142, 231, 29, 115, 196, 217, 103, 133]. **Inversion** [162]. **Inviscid** [187]. **Involving** [105]. **Ion** [154]. **Ions** [170]. **Iontophoretic** [85].

Isentropic [111]. **Isotherm** [197]. **Isothermal** [95].
Jets [122]. **Joint** [137]. **Jump** [101].
Junction [17, 51].
Keller [40, 14]. **Kernel** [119]. **Kernels** [101]. **Key** [180]. **Kinetic** [13, 61, 216].
Kirchhoff [70]. **Kolmogorov** [81].
Koshland [52].
Laminar [122]. **Langevin** [55]. **Larché** [99].
Large [236, 18, 35]. **Large-Population** [236]. **Lattices** [207]. **Lavrent'ev** [208].
Law [134, 35]. **Laws** [210]. **Layer** [27, 163].
Layered [247]. **Layers** [210]. **Length** [165].
Level [162]. **Lévy** [54, 24]. **Lexicographic** [180]. **Liable** [241]. **Life** [176]. **Life-Saving** [176]. **Life-Threatening** [176]. **Lifshitz** [143]. **Lift** [146]. **Lift-Off** [146]. **Like** [150].
Limit [83, 145, 236, 187, 265]. **Limits** [24, 246]. **Line** [21]. **Linear** [138, 187, 208, 228, 252, 134, 62, 196].
Linearized [18]. **Liquid** [93, 135, 8].
Lithium [154]. **Lithium-Ion** [154]. **Local** [30, 260, 113, 184]. **Localization** [254, 166, 261]. **Localized** [138, 159].
Locally [234, 23]. **Locating** [197]. **Logistic** [127]. **Long** [6, 256, 39, 50]. **Long-Term** [39]. **Longitudinal** [38, 4]. **Looping** [160].
Loss [157]. **Lotka** [193]. **Lottery** [230].
Love [70].
Macro [83]. **Macroscopic** [128, 31, 246].
Magnetic [233, 1, 91].
Magnetohydrodynamic [100]. **Many** [87, 164]. **Many-to-One** [164]. **Map** [117].
Maps [185, 62]. **Marangoni** [232, 8].
Marangoni-Driven [8]. **Mass** [87].
Mass-Action [87]. **Matching** [215].
Materials [245, 247]. **Mathematical** [189, 67, 32, 176, 27, 94, 150, 178, 89].
Mathematics [36]. **Matrix** [36]. **Mattress** [4]. **Maximizing** [209]. **Mean** [53, 100, 54, 22, 129, 35]. **Mean-Field** [53, 100, 129]. **Mean-Return-Time** [22].
Measurements [250]. **Measures** [239, 261].
Mechanics [243, 212]. **Mechanisms** [60].
Media [190, 114, 23, 212]. **Mediated** [271].
Medium [2, 181, 200]. **Meinhardt** [138].
Melanoma [43]. **Membrane** [272, 110, 69, 19]. **Meshkov** [165]. **Meso** [246]. **Metabolic** [238]. **Method** [213, 250, 71, 151, 103]. **Methods** [164, 13, 237]. **Metric** [49]. **Micro** [83, 246].
Micro-Macro [83]. **Micro-Meso** [246].
Microalgae [37]. **Microcavities** [89].
Microorganisms [20]. **Microscale** [99].
Microscopic [63]. **Microsilica** [47].
Migration [141, 246]. **Minimization** [73].
Minimizers [104]. **Minnaert** [245]. **Mirage** [240]. **Mitral** [243]. **Mixed** [219, 59].
Mixed-Dimensional [219]. **Mixed-Effects** [59]. **Mixing** [153]. **Mixotrophic** [106].
Modal [119]. **Mode** [38]. **Model** [68, 255, 40, 125, 207, 160, 161, 141, 189, 14, 230, 83, 238, 137, 258, 43, 271, 193, 105, 108, 176, 27, 38, 138, 197, 74, 56, 80, 82, 249, 61, 75, 112, 77, 136, 147, 128, 59, 28, 44, 195, 252, 49, 149, 39, 267, 178, 69, 266, 84, 31, 227, 154, 117, 51, 182, 169, 81, 244].
Modeled [257]. **Modeling** [40, 144, 259, 11, 63, 47, 34, 37, 126, 99, 212, 140, 152].
Models [100, 144, 66, 30, 26, 206, 132, 20, 219, 236, 1, 91, 143, 168, 264, 127, 86, 177, 203, 225, 218, 60, 184]. **Modified** [250, 195].
Modulated [93]. **Molecules** [113].
Moment [13, 216]. **Momentum** [235].
Monotonicity [2, 264, 181]. **Monoxide** [47]. **Morphogenesis** [161].
Morphomechanical [160]. **Mortal** [120].
Mosquito [152]. **Mosquitoes** [44]. **Motion** [263]. **Motions** [215, 107]. **Movement** [229, 139, 212, 117]. **Moving** [197]. **Mucus** [163]. **Multifrequency** [226]. **Multilayer** [239, 141]. **Multiple** [56, 106, 102, 96].
Multiple-Scale [56]. **Multiscale** [259, 183, 99]. **Myosin** [266].

Myosin-Driven [266]. **Myxomatosis** [149].
Nabarro [112]. **Narrow** [94]. **Navigation** [84]. **Near** [53, 21, 250, 198]. **Necessary** [144]. **Negative** [61]. **Nematic** [135, 76]. **Nernst** [144, 195, 86]. **Network** [194, 44]. **Networks** [79, 239, 167, 63, 132, 194, 173, 185, 153, 58, 35, 115]. **Neumann** [73]. **Neural** [203, 225, 35, 115]. **Neuronal** [144]. **Neutral** [65]. **Neutron** [164]. **Next** [189]. **Next-Generation** [189]. **Noise** [156]. **Noisy** [241]. **Nondilute** [233]. **Nonelliptical** [65]. **Nonenergetic** [127]. **Nonlinear** [257, 175, 64, 78, 108, 77, 187, 208, 124, 69, 217, 130]. **Nonlinearities** [33]. **Nonlocal** [125, 83, 20, 249]. **Nonradiating** [190]. **Nonstandard** [183]. **Nonstationary** [230]. **Nonuniversality** [198]. **Nonzero** [73, 48]. **Novel** [238, 204, 246]. **Number** [57, 90]. **Numbers** [35]. **Numerical** [263, 67, 208, 260, 153, 89, 182]. **Nutrient** [183, 227]. **Nutrient-Phytoplankton-Zooplankton** [227].
Observation [123]. **ODE** [69]. **Off** [146]. **Ogden** [96]. **Oil** [141]. **One** [144, 164, 69, 62, 200]. **One-Dimensional** [69, 62, 200]. **Operator** [202, 231]. **Operators** [159, 131]. **Opinion** [211]. **Optical** [89]. **Optimal** [207, 10, 5, 171, 127, 153, 84, 29, 169]. **Optimization** [162, 172, 64, 127, 153]. **Optimizing** [241]. **Orb** [222]. **Orb-Web** [222]. **Order** [132, 187, 3, 133, 149]. **Ordinary** [34]. **Orthogonal** [93]. **Oscillators** [22]. **Oscillatory** [79, 69]. **Ovarian** [255]. **Overwashed** [157]. **Oxidation** [102]. **Oxygen** [47].
Parameter [137, 196]. **Parameters** [180]. **Parcel** [34]. **Partial** [213, 22]. **Particle** [158, 47, 236, 28]. **Particles** [233, 24]. **Passage** [120]. **Passive** [156]. **Patch** [264]. **Pattern** [214, 121]. **Patterns** [138]. **PDE** [69, 117, 60]. **PDEs** [220, 236]. **Peierls** [112]. **Percolation** [58]. **Period** [62]. **Periodic** [167, 234, 94, 264, 23, 151, 131]. **Periodical** [252]. **Periodicity** [155]. **Permanent** [86]. **Permeability** [17]. **Persistence** [193, 117]. **Perturbed** [234]. **Pest** [81]. **Phase** [22, 14, 72, 73, 28, 99, 212, 115]. **Phase-Field** [28, 212]. **Phaseless** [103]. **Phenomena** [116]. **Phenomenon** [127]. **Phenotypic** [140]. **Phonon** [248]. **Physical** [33]. **Physiology** [201]. **Phytoplankton** [252, 227]. **Piecewise** [252, 62]. **Planar** [22]. **Planck** [144, 195, 86]. **Plane** [123, 222, 96]. **Plant** [183]. **Plasmon** [159]. **Plasmons** [166]. **Plasticity** [203, 225]. **Plate** [70]. **Platooning** [31]. **Plesset** [170]. **Point** [269]. **Poisson** [144, 92, 195, 86]. **Polarization** [72, 93]. **Polarization-Modulated** [93]. **Policies** [171]. **Polluted** [244]. **Polygons** [76, 48]. **Polyhedral** [121]. **Polytopes** [215]. **Population** [68, 255, 186, 82, 236, 127, 71, 152]. **Populations** [244]. **Porous** [23, 212]. **Posedness** [70, 219]. **Positive** [87]. **Posteriori** [259]. **Potato** [146]. **Potential** [18, 86]. **Pouch** [154]. **Power** [175, 134]. **Predator** [118, 80, 267]. **Predators** [80]. **Predicting** [146]. **Prescribed** [9]. **Presence** [96]. **Pressure** [213]. **Prey** [118, 80, 222, 267]. **Principal** [46, 264]. **Probabilistic** [148]. **Problem** [123, 202, 6, 67, 42, 45, 18, 73, 208, 174, 114, 231, 127, 89, 130, 196, 217]. **Problems** [70, 219, 3, 133, 260, 115]. **Procedures** [176]. **Process** [259, 172]. **Production** [27]. **Profile** [21]. **Profiles** [57, 90]. **Projection** [46]. **Proliferation** [60]. **Propagation** [186, 26, 129, 168, 252, 117]. **Properties** [240, 55]. **Proteins** [19]. **Protocols** [32]. **Quadrature** [13]. **Quadrature-Based** [13]. **Qualitative** [263]. **Quantification** [256]. **Quantum** [239]. **Quarter** [123].

Quarter-Plane [123]. **Quasi** [218].
Quasi-Stationarity [218]. **Queueing** [171].
Queueing [221]. **Queueing-Type** [221].

Radial [111]. **Radiation** [150, 237].
Radiative [108, 124]. **Radius** [145].
Random [239, 142, 223, 184].
Random-Walk [239]. **Randomly** [200].
Rasclé [83]. **Rates** [39]. **Rayleigh**
 [170, 165]. **Reactants** [102]. **Reaction**
 [229, 79, 125, 11, 95, 26, 47, 236, 102, 130,
 205, 182, 169]. **Reaction-Diffusion**
 [236, 169]. **Reactions** [79]. **Reactive**
 [122, 147]. **Reactors** [172]. **Reconstructing**
 [248]. **Reconstruction** [213, 226, 124].
Reconstructions [162]. **Recruitment**
 [192]. **Reduced** [76]. **Reduction** [154].
Reflected [157]. **Refugee** [212].
Regeneration [271]. **Regular** [101, 48].
Regularization [9]. **Regulations** [238].
Relation [194, 143]. **Relations** [101].
Relevant [174]. **Reliable** [100].
Representation [272]. **Representations**
 [199]. **Reproduction** [57, 90]. **Residence**
 [261]. **Resonance** [1, 91, 94]. **Resonances**
 [245, 242, 159]. **Resonant** [188].
Resonators [77]. **Response** [15]. **Results**
 [204]. **Return** [22]. **Reversal** [86].
Reversible [79, 87, 12]. **Richtmyer** [165].
Rigid [145, 215, 113]. **Rigid-Body** [215].
Rigorous [246]. **Riots** [180]. **River** [244].
RNA [61]. **Robotic** [24]. **Rolling** [253].
Root [183]. **Roots** [183, 221]. **Rotational**
 [19].

Sampling [250]. **Saturated** [106]. **Saving**
 [176]. **Scaffold** [271]. **Scalar** [119, 220].
Scale [56, 165]. **Scale-Dependent** [165].
Scaling [183, 225]. **Scattered** [226].
Scatterers [121, 269]. **Scattering**
 [70, 42, 2, 181, 121, 234, 191, 142, 103].
Scheme [9]. **Schrödinger** [18, 191]. **Search**
 [161]. **Search-and-Capture** [161].
Searchers [120]. **Searching** [80]. **Second**
 [132, 41]. **Second-Order** [132]. **Segel**
 [40, 14]. **Selection** [10, 16]. **Self** [158, 165].
Self-Driven [158]. **Self-Similar** [165].
Sensors [148]. **Separation** [99].
Sequencing [61]. **Series** [134]. **Set** [162].
Set-Based [162]. **Sexual** [186]. **Shallow**
 [134]. **Shape** [162, 172, 215]. **Shapes** [65].
Sharp [162, 75, 265]. **Sharp-Interface**
 [162, 75]. **Shaw** [16]. **Shear** [237]. **Sheaves**
 [211]. **Shelf** [188]. **Shift** [117]. **Shifting**
 [193]. **Sign** [40]. **Sign-Changing** [40].
Signal [246]. **Signal-Triggered** [246].
Signaling [144]. **Significance** [149]. **Silicon**
 [47]. **Similar** [165]. **Simple** [148]. **Simulate**
 [176]. **Simulating** [75]. **Simulation**
 [159, 99]. **Simulations** [182]. **Single**
 [121, 61]. **Single-Cell** [61]. **SIR** [218]. **SIRS**
 [39]. **SIS** [218]. **Size** [98, 127]. **Slab** [108].
Sliding [107]. **Slits** [94]. **Slope** [8]. **Slow**
 [255, 138]. **Slow-Fast** [255]. **Slyozov**
 [143, 143]. **Smectic** [93]. **Snacks** [146].
Social [192]. **Søderberg** [197]. **Soft**
 [33, 245]. **Solid** [248, 75]. **Solid-State** [75].
Solution [208, 97]. **Solutions**
 [6, 14, 193, 105, 143, 9, 268, 134, 177].
Solvability [34]. **Solvent** [170]. **Some**
 [204, 177]. **Source** [226, 114, 142, 231, 25].
Sources [190]. **Space** [263, 115]. **Sparse**
 [46, 226, 183]. **Spatial** [155, 270]. **Spatially**
 [185, 205]. **Spatio** [227]. **Spatio-temporal**
 [227]. **Spatiotemporal** [244]. **Speciation**
 [259]. **Species** [229, 193, 204].
Species-Dependent [229]. **Spectral**
 [202, 8]. **Spectrum** [131]. **Speed** [82].
Speeds [168]. **sphere** [195]. **Spider** [222].
Spines [266]. **Spirally** [247]. **Spontaneous**
 [158]. **Spot** [138]. **Spread** [193, 270].
Spreading [57, 90]. **Square** [54]. **Stability**
 [138, 13, 249, 114, 231, 7, 184, 74].
Stabilization [106]. **Stable** [177]. **State**
 [137, 1, 91, 75, 177]. **State-Parameter**
 [137]. **States** [254, 87, 41, 44]. **Static**
 [174, 102]. **Stationarity** [218]. **Steady**
 [87, 1, 91, 177]. **Steady-State** [177].

Steigmann [96]. **Stekloff** [42]. **Stents** [189]. **Step** [150]. **Step-Like** [150]. **Sterile** [152]. **Stochastic** [255, 262, 22, 164, 158, 236, 112, 39, 71, 266, 84, 203, 225]. **Stoichiometric** [56]. **Stokes** [101]. **Stokesian** [145]. **Straight** [96]. **Strains** [125]. **Strategies** [24]. **Stream** [82]. **Stream-Population** [82]. **Strong** [139, 104]. **Structure** [118, 30, 251, 50, 62, 58, 107]. **Structured** [17]. **Structures** [213, 174, 242]. **Study** [67, 76]. **Subdiffusion** [229]. **Succession** [68]. **Sugimoto** [77]. **Summation** [151]. **Supersaturated** [143]. **Suppression** [152]. **Surface** [166, 27, 150, 159, 96]. **Surfaces** [101, 19]. **Surfactant** [232, 126]. **Surgical** [176]. **Surprising** [123]. **Suspension** [233]. **Swarm** [24]. **Switch** [52]. **Switching** [17]. **Symmetries** [113]. **Symmetry** [30, 221, 50]. **Synaptic** [203, 225]. **Synchronization** [175]. **System** [11, 175, 34, 99]. **Systematic** [78]. **Systems** [87, 12, 24, 158, 215, 171, 241, 221, 205].

Tails [198]. **Taylor** [165]. **Technique** [152]. **temporal** [227]. **Temporally** [109]. **Tensors** [113]. **Term** [39]. **Their** [6]. **Theorems** [145]. **Theoretic** [66]. **Theoretical** [253]. **Theory** [235, 92, 94, 69, 157]. **Therapy** [43]. **Thermal** [248, 15]. **Thermally** [15]. **Thermistor** [197]. **Thermocapillary** [4]. **Theta** [207]. **Thin** [209, 72, 8]. **Third** [187]. **Third-Order** [187]. **Threatening** [176]. **Three** [166, 144, 67, 138, 75, 178]. **Three-Dimensional** [67, 138]. **Three-Tiered** [178]. **Tiered** [178]. **Time** [162, 146, 6, 155, 22, 261, 121, 234, 264, 260, 97, 218, 265, 117]. **Time-Domain** [162]. **Time-Fractional** [265]. **Time-Harmonic** [121, 234, 260]. **Time-Periodic** [264]. **Times** [120]. **Tomography** [258, 5, 88, 25]. **Topology** [194]. **Torsion** [48]. **Torsional** [160]. **Torus** [88, 185]. **Total** [64, 127, 103]. **Total-Field** [103]. **Toxicants** [244]. **tQSSA** [52]. **Trace** [42]. **Traction** [33]. **Traffic** [63, 105, 132, 249, 128, 31]. **Transdermal** [85]. **Transfer** [108, 124]. **Transient** [56, 256, 130]. **Transistors** [116]. **Transition** [72, 157]. **Transition-Loss** [157]. **Transitions** [14]. **Translation** [131]. **Transmission** [240, 248, 45, 149]. **Transmitted** [157]. **Transplant** [171]. **Transport** [10, 164, 24, 116, 248, 163, 153, 23, 29, 200]. **Trapping** [141]. **Traveling** [122, 82]. **Travelling** [74]. **Triggered** [246]. **Triple** [51]. **Truncated** [242]. **Truncating** [134]. **Truss** [174]. **Tube** [213]. **Tubes** [209]. **Tumor** [137, 43, 168, 169]. **Tumors** [140]. **Turbines** [253]. **Turbulent** [126]. **Two** [193, 38, 76, 73, 28, 44, 159, 204, 89, 196]. **Two-Dimensional** [38, 76, 89, 196]. **Two-Phase** [73, 28]. **Two-Species** [193]. **Type** [83, 221].

Ultrasound [257]. **Unbounded** [2, 181]. **Understanding** [168]. **Unequal** [86]. **Uniform** [52, 7]. **Unique** [34]. **United** [44]. **Upscaling** [78, 23]. **Uptake** [78, 183]. **Uranium** [102]. **Using** [180, 40, 259, 64].

Vacuum [6]. **Value** [174]. **Valve** [243]. **Vanishing** [145]. **Vapor** [102]. **Variable** [46]. **Variation** [64]. **Variational** [72, 237, 268]. **Varying** [206, 173, 165]. **Vascularized** [140]. **Vector** [149]. **Vectorial** [220]. **Vehicles** [249]. **Vehicular** [63]. **Vesicles** [266]. **Via** [261, 10, 46, 56, 129, 16, 86, 159, 41]. **Vibration** [222]. **Vibrations** [188]. **Viral** [125]. **Viscoelasticity** [3, 196, 133]. **Viscous** [232, 233]. **Visual** [49]. **Volterra** [193]. **Volume** [14, 9]. **Vortex** [93, 252, 48]. **Voter** [30].

Wagner [143]. **Walk** [239]. **Walks** [54, 223]. **Walls** [53]. **Warm** [34]. **Water** [102, 134]. **Wave** [202, 119, 158, 150, 252]. **Waveform**

[162]. **Waveguide** [131]. **Wavenumber** [18]. **Waves** [74, 82, 190, 269, 157]. **Weakly** [87, 12, 69]. **Wealth** [198]. **Web** [222]. **Wedge** [269]. **Weighted** [174]. **Well** [70, 219]. **Well-Posedness** [70, 219]. **Westervelt** [257]. **Wetting** [21]. **Whelan** [191]. **Winter** [40]. **Within** [78]. **Wolbachia** [152]. **Wound** [247].

Zero [61]. **Zero-Inflated** [61]. **Zooplankton** [227].

References

Jiang:2011:ASS

- [1] Yu Jiang, Hiroshi Fujiwara, and Gen Nakamura. Approximate steady state models for magnetic resonance elastography. *SIAM Journal on Applied Mathematics*, 71(6):1965–1989, 2011. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL http://epubs.siam.org/siap/resource/1/smjmap/v71/i6/p1965_s1. See erratum [91].

Griesmaier:2018:MIM

- [2] Roland Griesmaier and Bastian Harach. Monotonicity in inverse medium scattering on unbounded domains. *SIAM Journal on Applied Mathematics*, 78(5):2533–2557, 2018. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). See erratum [181].

Kirsch:2019:IPA

- [3] Andreas Kirsch and Andreas Rieder. Inverse problems for abstract evolution equations II: Higher order differentiability for viscoelasticity. *SIAM Journal on Applied Mathematics*, 79

(6):2639–2662, 2019. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). See erratum [133].

Yariv:2020:LTF

- [4] Ehud Yariv and Darren Crowdy. Longitudinal thermocapillary flow over a dense bubble mattress. *SIAM Journal on Applied Mathematics*, 80(1):1–19, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Garde:2020:ODD

- [5] Henrik Garde and Nuutti Hyvönen. Optimal depth-dependent distinguishability bounds for electrical impedance tomography in arbitrary dimension. *SIAM Journal on Applied Mathematics*, 80(1):20–43, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Camassa:2020:VDB

- [6] Roberto Camassa, Gregorio Falqui, Giovanni Ortenzi, Marco Pedroni, and Giuseppe Pitton. On the “vacuum” dam-break problem: Exact solutions and their long time asymptotics. *SIAM Journal on Applied Mathematics*, 80(1):44–70, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Yorkston:2020:DSE

- [7] Adam A. Yorkston, Mark G. Blyth, and Emilian I. Parau. The deformation and stability of an elastic cell in a uniform flow. *SIAM Journal on Applied Mathematics*, 80(1):71–94, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ghazaryan:2020:SAF

- [8] Anna Ghazaryan, Stephane Lafortune, and Vahagn Manukian. Spectral analysis of fronts in a Marangoni-driven thin liquid film flow down a slope. *SIAM Journal on Applied Mathematics*, 80(1):95–118, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Negrón-Marrero:2020:CRS

- [9] Pablo V. Negrón-Marrero and Jeyabal Sivaloganathan. On the convergence of a regularization scheme for approximating cavitation solutions with prescribed cavity volume. *SIAM Journal on Applied Mathematics*, 80(1):119–141, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Chow:2020:ESO

- [10] Shui nee Chow, Wuchen Li, Jun Lu, and Haomin Zhou. Equilibrium selection via optimal transport. *SIAM Journal on Applied Mathematics*, 80(1):142–159, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Burger:2020:RCD

- [11] Martin Burger, Patricia Friele, and Jan-Frederik Pietschmann. On a reaction–cross-diffusion system modeling the growth of glioblastoma. *SIAM Journal on Applied Mathematics*, 80(1):160–182, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Craciun:2020:ECC

- [12] Gheorghe Craciun, Jiaxin Jin, and Polly Y. Yu. An efficient character-

ization of complex-balanced, detailed-balanced, and weakly reversible systems. *SIAM Journal on Applied Mathematics*, 80(1):183–205, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Huang:2020:SAQ

- [13] Qian Huang, Shuiqing Li, and Wen-An Yong. Stability analysis of quadrature-based moment methods for kinetic equations. *SIAM Journal on Applied Mathematics*, 80(1):206–231, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Carrillo:2020:PTB

- [14] Jose A. Carrillo, Xinfu Chen, Qi Wang, Zhian Wang, and Lu Zhang. Phase transitions and bump solutions of the Keller–Segel model with volume exclusion. *SIAM Journal on Applied Mathematics*, 80(1):232–261, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Hermanns:2020:HTR

- [15] Miguel Hermanns and Santiago Ibáñez. Harmonic thermal response of thermally interacting geothermal boreholes. *SIAM Journal on Applied Mathematics*, 80(1):262–288, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Lustri:2020:SHS

- [16] Christopher J. Lustri, Christopher C. Green, and Scott W. McCue. Selection of a Hele–Shaw bubble via exponential asymptotics. *SIAM Journal on Applied Mathematics*, 80(1):289–311, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Bressloff:2020:EPG

- [17] Paul C. Bressloff, Sean D. Lawley, and Patrick Murphy. Effective permeability of a gap junction with age-structured switching. *SIAM Journal on Applied Mathematics*, 80(1):312–337, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Isakov:2020:LIS

- [18] Victor Isakov, Shuai Lu, and Boxi Xu. Linearized inverse Schrödinger potential problem at a large wavenumber. *SIAM Journal on Applied Mathematics*, 80(1):338–358, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Zhou:2020:CDR

- [19] Yongcheng Zhou. On curvature driven rotational diffusion of proteins on membrane surfaces. *SIAM Journal on Applied Mathematics*, 80(1):359–381, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Hillen:2020:NAM

- [20] Thomas Hillen and Andreas Butten-
schön. Nonlocal adhesion models for microorganisms on bounded domains. *SIAM Journal on Applied Mathematics*, 80(1):382–401, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Cui:2020:IPN

- [21] Hanwen Cui and Weiqing Ren. Interface profile near the contact line in electro-wetting on dielectric. *SIAM Journal on Applied Mathematics*, 80(1):402–421, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Cao:2020:PDE

- [22] Alexander Cao, Benjamin Lindner, and Peter J. Thomas. A partial differential equation for the mean-return-time phase of planar stochastic oscillators. *SIAM Journal on Applied Mathematics*, 80(1):422–447, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Muntean:2020:CTL

- [23] Adrian Muntean and Christos Nikolopoulos. Colloidal transport in locally periodic evolving porous media — an up-scaling exercise. *SIAM Journal on Applied Mathematics*, 80(1):448–475, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Estrada-Rodriguez:2020:IPL

- [24] Gissell Estrada-Rodriguez and Heiko Gimperlein. Interacting particles with Lévy strategies: Limits of transport equations for swarm robotic systems. *SIAM Journal on Applied Mathematics*, 80(1):476–498, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Zhang:2020:SCE

- [25] Tingting Zhang, Geuk Young Jang, Tong In Oh, Kyung Woon Jeung, Hun Wi, and Eung Je Woo. Source consistency electrical impedance tomography. *SIAM Journal on Applied Mathematics*, 80(1):499–520, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Fazly:2020:API

- [26] Mostafa Fazly, Mark Lewis, and Hao Wang. Analysis of propagation for impulsive reaction–diffusion models. *SIAM*

Journal on Applied Mathematics, 80 (1):521–542, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Gandolfi:2020:BLE

- [27] Alberto Gandolfi, Mimmo Iannelli, and Gabriela Marinoschi. The basal layer of the epidermis: a mathematical model for cell production under a surface density constraint. *SIAM Journal on Applied Mathematics*, 80(1):543–571, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Li:2020:EDP

- [28] Xiang Li, Qiang Du, and Xiao-Ping Wang. Energy decaying phase-field model for fluid-particle interaction in two-phase flow. *SIAM Journal on Applied Mathematics*, 80(1):572–598, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Stuart:2020:IOT

- [29] Andrew M. Stuart and Marie-Therese Wolfram. Inverse optimal transport. *SIAM Journal on Applied Mathematics*, 80(1):599–619, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Chodrow:2020:LSG

- [30] Philip S. Chodrow and Peter J. Mucha. Local symmetry and global structure in adaptive voter models. *SIAM Journal on Applied Mathematics*, 80(1):620–638, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Piacentini:2020:MMP

- [31] Giulia Piacentini, Paola Goatin, and Antonella Ferrara. A macroscopic model for platooning in highway traffic. *SIAM Journal on Applied Mathematics*, 80(1):639–656, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Dalwadi:2020:MFD

- [32] Mohit P. Dalwadi, Sarah L. Waters, Helen M. Byrne, and Ian J. Hewitt. A mathematical framework for developing freezing protocols in the cryopreservation of cells. *SIAM Journal on Applied Mathematics*, 80(2):657–689, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ciarletta:2020:EFB

- [33] Pasquale Ciarletta, Hui-Hui Dai, and Matteo Taffetani. Elastic fingering of a bonded soft disc in traction: Interplay of geometric and physical nonlinearities. *SIAM Journal on Applied Mathematics*, 80(2):690–705, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Hanke:2020:USS

- [34] Martin Hanke and Nikolas Porz. Unique solvability of a system of ordinary differential equations modeling a warm cloud parcel. *SIAM Journal on Applied Mathematics*, 80(2):706–724, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Sirignano:2020:MFA

- [35] Justin Sirignano and Konstantinos Spiliopoulos. Mean field analysis of neural networks: a law of large numbers.

SIAM Journal on Applied Mathematics, 80(2):725–752, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Zabarankin:2020:MDE

- [36] Michael Zabarankin and Bogdan Grechuk. Matrix difference equations in applied mathematics. *SIAM Journal on Applied Mathematics*, 80(2):753–771, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Martinez:2020:MAA

- [37] Carlos Martinez, Andrés Ávila, Francis Mairet, Leslie Meier, and David Jeison. Modeling and analysis of an absorption column connected to a microalgae culture. *SIAM Journal on Applied Mathematics*, 80(2):772–791, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Gaudiello:2020:TDE

- [38] Antonio Gaudiello and Michel Lenczner. A two-dimensional electrostatic model of interdigitated comb drive in longitudinal mode. *SIAM Journal on Applied Mathematics*, 80(2):792–813, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Nguyen:2020:LTA

- [39] Dang Hai Nguyen, George Yin, and Chao Zhu. Long-term analysis of a stochastic SIRS model with general incidence rates. *SIAM Journal on Applied Mathematics*, 80(2):814–838, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Bastiaansen:2020:MHB

- [40] Robbin Bastiaansen, Arjen Doelman, Frank van Langevelde, and Vivi Rottschäfer. Modeling honey bee colonies in winter using a Keller–Segel model with a sign-changing chemotactic coefficient. *SIAM Journal on Applied Mathematics*, 80(2):839–863, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Yuan:2020:EBS

- [41] Lijun Yuan and Ya Yan Lu. Excitation of bound states in the continuum via second harmonic generations. *SIAM Journal on Applied Mathematics*, 80(2):864–880, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Cogar:2020:ATC

- [42] Samuel Cogar. Analysis of a trace class Stekloff eigenvalue problem arising in inverse scattering. *SIAM Journal on Applied Mathematics*, 80(2):881–905, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Dickman:2020:TCE

- [43] Lauren R. Dickman, Evan Milliken, and Yang Kuang. Tumor control, elimination, and escape through a compartmental model of dendritic cell therapy for melanoma. *SIAM Journal on Applied Mathematics*, 80(2):906–928, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Liu:2020:NMT

- [44] Zuhan Liu, Canrong Tian, and Shigui Ruan. On a network model of two competitors with applications to the invasion

and competition of *Aedes Albopictus* and *Aedes Aegypti* mosquitoes in the United States. *SIAM Journal on Applied Mathematics*, 80(2):929–950, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Helsing:2020:ECC

- [45] Johan Helsing and Anders Karlsson. An extended charge–current formulation of the electromagnetic transmission problem. *SIAM Journal on Applied Mathematics*, 80(2):951–976, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Erichson:2020:SPC

- [46] N. Benjamin Erichson, Peng Zheng, Krithika Manohar, Steven L. Brunton, J. Nathan Kutz, and Aleksandr Y. Aravkin. Sparse principal component analysis via variable projection. *SIAM Journal on Applied Mathematics*, 80(2):977–1002, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Gonzalez-Farina:2020:MMP

- [47] Raquel González-Fariña, Andreas Münch, James M. Oliver, and Robert A. Van Gorder. Modeling microsilica particle formation and growth due to the combustion reaction of silicon monoxide with oxygen. *SIAM Journal on Applied Mathematics*, 80(2):1003–1033, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

delaHoz:2020:EVF

- [48] Francisco de la Hoz, Sandeep Kumar, and Luis Vega. On the evolution of

the vortex filament equation for regular M -polygons with nonzero torsion. *SIAM Journal on Applied Mathematics*, 80(2):1034–1056, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Montobbio:2020:MMF

- [49] Noemi Montobbio, Alessandro Sarti, and Giovanna Citti. A metric model for the functional architecture of the visual cortex. *SIAM Journal on Applied Mathematics*, 80(2):1057–1081, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Pandurangi:2020:HAS

- [50] Shrinidhi S. Pandurangi, Timothy J. Healey, and Nicolas Triantafyllidis. Hidden asymptotic symmetry in a long elastic structure. *SIAM Journal on Applied Mathematics*, 80(3):1083–1100, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Wei:2020:GBT

- [51] Chaozhen Wei, Luchan Zhang, Jian Han, David J. Srolovitz, and Yang Xiang. Grain boundary triple junction dynamics: a continuum disconnection model. *SIAM Journal on Applied Mathematics*, 80(3):1101–1122, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Bersani:2020:UAE

- [52] A. M. Bersani, A. Borri, A. Milanesi, G. Tomassetti, and P. Vellucci. Uniform asymptotic expansions beyond the tQSSA for the Goldbeter–Koshland switch. *SIAM Journal on Applied Mathematics*, 80(3):1123–1152, 2020.

CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Aurell:2020:BNW

- [53] Alexander Aurell and Boualem Djehiche. Behavior near walls in the mean-field approach to crowd dynamics. *SIAM Journal on Applied Mathematics*, 80(3):1153–1174, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Borgers:2020:MSD

- [54] Christoph Börgers and Claude Greenard. On the mean square displacement in Lévy walks. *SIAM Journal on Applied Mathematics*, 80(3):1175–1196, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Leimkuhler:2020:HPA

- [55] Benedict Leimkuhler, Matthias Sachs, and Gabriel Stoltz. Hypocoercivity properties of adaptive Langevin dynamics. *SIAM Journal on Applied Mathematics*, 80(3):1197–1222, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Heggerud:2020:TDS

- [56] Christopher M. Heggerud, Hao Wang, and Mark A. Lewis. Transient dynamics of a stoichiometric cyanobacteria model via multiple-scale analysis. *SIAM Journal on Applied Mathematics*, 80(3):1223–1246, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Chen:2020:APB

- [57] Shanshan Chen and Junping Shi. Asymptotic profiles of basic reproduc-

tion number for epidemic spreading in heterogeneous environment. *SIAM Journal on Applied Mathematics*, 80(3):1247–1271, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). See erratum [90].

Shang:2020:GCP

- [58] Yilun Shang. Generalized K -core percolation in networks with community structure. *SIAM Journal on Applied Mathematics*, 80(3):1272–1289, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Lee:2020:HME

- [59] Yunjeong Lee, Yoon gu Hwang, Hee-Dae Kwon, Jun Yong Choi, and Jeehyun Lee. Hierarchical mixed-effects model for HIV dynamics. *SIAM Journal on Applied Mathematics*, 80(3):1290–1306, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Xia:2020:PMA

- [60] Mingtao Xia, Chris D. Greenman, and Tom Chou. PDE models of adder mechanisms in cellular proliferation. *SIAM Journal on Applied Mathematics*, 80(3):1307–1335, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Jia:2020:KFZ

- [61] Chen Jia. Kinetic foundation of the zero-inflated negative binomial model for single-cell RNA sequencing data. *SIAM Journal on Applied Mathematics*, 80(3):1336–1355, 2020. CO-

DEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Segura:2020:DPA

- [62] Juan Segura, Frank M. Hilker, and Daniel Franco. Degenerate period adding bifurcation structure of one-dimensional bimodal piecewise linear maps. *SIAM Journal on Applied Mathematics*, 80(3):1356–1376, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Colombo:2020:MMV

- [63] Rinaldo M. Colombo, Helge Holden, and Francesca Marcellini. On the microscopic modeling of vehicular traffic on general networks. *SIAM Journal on Applied Mathematics*, 80(3):1377–1391, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Cristofari:2020:TVB

- [64] Andrea Cristofari, Francesco Rinaldi, and Francesco Tudisco. Total variation based community detection using a nonlinear optimization approach. *SIAM Journal on Applied Mathematics*, 80(3):1392–1419, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Lim:2020:IGS

- [65] Mikyoung Lim and Graeme W. Milton. Inclusions of general shapes having constant field inside the core and nonelliptical neutral coated inclusions with anisotropic conductivity. *SIAM Journal on Applied Mathematics*, 80(3):1420–1440, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Cartee:2020:CTM

- [66] Elliot Cartee and Alexander Vladimirsky. Control-theoretic models of environmental crime. *SIAM Journal on Applied Mathematics*, 80(3):1441–1466, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Chen:2020:MNS

- [67] Junqing Chen, Ying Liang, and Jun Zou. Mathematical and numerical study of a three-dimensional inverse eddy current problem. *SIAM Journal on Applied Mathematics*, 80(3):1467–1492, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Bai:2020:DSM

- [68] Zhenguo Bai, Yijun Lou, and Xiao-Qiang Zhao. A delayed succession model with diffusion for the impact of diapause on population growth. *SIAM Journal on Applied Mathematics*, 80(3):1493–1519, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Paquin-Lefebvre:2020:WNT

- [69] Frédéric Paquin-Lefebvre, Wayne Nagata, and Michael J. Ward. Weakly nonlinear theory for oscillatory dynamics in a one-dimensional PDE–ODE model of membrane dynamics coupled by a bulk diffusion field. *SIAM Journal on Applied Mathematics*, 80(3):1520–1545, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Bourgeois:2020:WPS

- [70] Laurent Bourgeois and Christophe Hazard. On well-posedness of scattering

problems in a Kirchhoff–Love infinite plate. *SIAM Journal on Applied Mathematics*, 80(3):1546–1566, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Nguyen:2020:MDC

- [71] Dang H. Nguyen and Edouard Strickler. A method to deal with the critical case in stochastic population dynamics. *SIAM Journal on Applied Mathematics*, 80(3):1567–1589, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Du:2020:VPF

- [72] Qiang Du, Ruotai Li, and Lei Zhang. Variational phase field formulations of polarization and phase transition in ferroelectric thin films. *SIAM Journal on Applied Mathematics*, 80(3):1590–1606, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Kang:2020:MFN

- [73] Di Kang, Patrick Choi, and Chiu-Yen Kao. Minimization of the first nonzero eigenvalue problem for two-phase conductors with Neumann boundary conditions. *SIAM Journal on Applied Mathematics*, 80(4):1607–1628, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Harley:2020:STW

- [74] Kristen E. Harley, Peter van Heijster, Robert Marangell, Graeme J. Pettet, Timothy V. Roberts, and Martin Wechselberger. (in)stability of travelling waves in a model of haptotaxis. *SIAM Journal on Applied Mathematics*, 80(4):1629–1653, 2020. CODEN

SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Jiang:2020:SIM

- [75] Wei Jiang, Quan Zhao, and Weizhu Bao. Sharp-interface model for simulating solid-state dewetting in three dimensions. *SIAM Journal on Applied Mathematics*, 80(4):1654–1677, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Han:2020:RSN

- [76] Yucen Han, Apala Majumdar, and Lei Zhang. A reduced study for nematic equilibria on two-dimensional polygons. *SIAM Journal on Applied Mathematics*, 80(4):1678–1703, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Junca:2020:ASM

- [77] Stéphane Junca and Bruno Lombard. Analysis of a sugimoto model of nonlinear acoustics in an array of Helmholtz resonators. *SIAM Journal on Applied Mathematics*, 80(4):1704–1722, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Dalwadi:2020:SUN

- [78] Mohit P. Dalwadi and John R. King. A systematic upscaling of nonlinear chemical uptake within a biofilm. *SIAM Journal on Applied Mathematics*, 80(4):1723–1750, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Banaji:2020:BOC

- [79] Murad Banaji. Building oscillatory chemical reaction networks by adding reversible reactions. *SIAM Journal on*

Applied Mathematics, 80(4):1751–1777, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Hsu:2020:HPP

- [80] Sze-Bi Hsu, Zhihua Liu, and Pierre Magal. A Holling predator–prey model with handling and searching predators. *SIAM Journal on Applied Mathematics*, 80(4):1778–1795, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Zhang:2020:BAG

- [81] Qianqian Zhang, Biao Tang, Tianyu Cheng, and Sanyi Tang. Bifurcation analysis of a generalized impulsive Kolmogorov model with applications to pest and disease control. *SIAM Journal on Applied Mathematics*, 80(4):1796–1819, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Huang:2020:SDT

- [82] Zhe Huang and Chunhua Ou. Speed determinacy of traveling waves to a stream-population model with Allee effect. *SIAM Journal on Applied Mathematics*, 80(4):1820–1840, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Chiarello:2020:MML

- [83] Felisia A. Chiarello, Jan Friedrich, Paola Goatin, and Simone Göttlich. Micro-macro limit of a nonlocal generalized aw-Rascle type model. *SIAM Journal on Applied Mathematics*, 80(4):1841–1861, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Parkinson:2020:MOH

- [84] Christian Parkinson, David Arnold, Andrea Bertozzi, and Stanley Osher. A model for optimal human navigation with stochastic effects. *SIAM Journal on Applied Mathematics*, 80(4):1862–1881, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ferreira:2020:AEI

- [85] José A. Ferreira, Paula de Oliveira, and Luís Pinto. Aging effect on iontophoretic transdermal drug delivery. *SIAM Journal on Applied Mathematics*, 80(4):1882–1907, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Mofidi:2020:RPR

- [86] Hamid Mofidi and Weishi Liu. Reversal potential and reversal permanent charge with unequal diffusion coefficients via classical Poisson–Nernst–Planck models. *SIAM Journal on Applied Mathematics*, 80(4):1908–1935, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Boros:2020:WRM

- [87] Balázs Boros, Gheorghe Craciun, and Polly Y. Yu. Weakly reversible mass-action systems with infinitely many positive steady states. *SIAM Journal on Applied Mathematics*, 80(4):1936–1946, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ilmavirta:2020:TCT

- [88] Joonas Ilmavirta, Olli Koskela, and Jesse Railo. Torus computed tomogra-

phy. *SIAM Journal on Applied Mathematics*, 80(4):1947–1976, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Spiridonov:2020:MNA

- [89] Alexander O. Spiridonov, Alina Oktyabrskaya, Evgenii M. Karchevskii, and Alexander I. Nosich. Mathematical and numerical analysis of the generalized complex-frequency eigenvalue problem for two-dimensional optical microcavities. *SIAM Journal on Applied Mathematics*, 80(4):1977–1998, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Chen:2020:EAP

- [90] Shanshan Chen and Junping Shi. Erratum: Asymptotic Profiles of Basic Reproduction Number for Epidemic Spreading in Heterogeneous Environment. *SIAM Journal on Applied Mathematics*, 80(4):1999–2000, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). See [57].

Jiang:2020:EAS

- [91] Yu Jiang, Hiroshi Fujiwara, and Gen Nakamura. Erratum for “Approximate Steady State Models for Magnetic Resonance Elastography”. *SIAM Journal on Applied Mathematics*, 80(4):2001, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). See [1].

Li:2020:GDH

- [92] Chin-Lung Li and Jinn-Liang Liu. Generalized Debye–Hückel equation from Poisson–Bikerman theory. *SIAM Journal on Applied Mathematics*, 80(5):2003–2023, 2020. CODEN

SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Garcia-Cervera:2020:BVF

- [93] Carlos J. García-Cervera, Tiziana Giorgi, and Sookyung Joo. Boundary vortex formation in polarization-modulated orthogonal smectic liquid crystals. *SIAM Journal on Applied Mathematics*, 80(5):2024–2044, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Lin:2020:MTF

- [94] Junshan Lin, Stephen P. Shipman, and Hai Zhang. A mathematical theory for Fano resonance in a periodic array of narrow slits. *SIAM Journal on Applied Mathematics*, 80(5):2045–2070, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ciesielski:2020:ADB

- [95] Danielle Ciesielski, Stephanie McCalla, and Tomas Gedeon. Analysis of dynamics of a biphasic isothermal DNA amplification reaction. *SIAM Journal on Applied Mathematics*, 80(5):2071–2097, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Zemlyanova:2020:IMP

- [96] Anna Y. Zemlyanova. Interaction of multiple plane straight fractures in the presence of the Steigmann–Ogden surface energy. *SIAM Journal on Applied Mathematics*, 80(5):2098–2119, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Nazaikinskii:2020:ESD

- [97] Vladimir E. Nazaikinskii, Pavel G. Bedrikovetsky, Liudmila I. Kuzmina, and Yuri V. Osipov. Exact solution for deep bed filtration with finite blocking time. *SIAM Journal on Applied Mathematics*, 80(5):2120–2143, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Gao:2020:HDD

- [98] Daozhou Gao. How does dispersal affect the infection size? *SIAM Journal on Applied Mathematics*, 80(5):2144–2169, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Reischmann:2020:MMS

- [99] L. Reischmann and M. A. Peter. Multiscale modeling and simulation of a Cahn–Larché system with phase separation on the microscale. *SIAM Journal on Applied Mathematics*, 80(5):2170–2193, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Boegli:2020:EMM

- [100] Sabine Boegli and Christiane Tretter. Eigenvalues of magnetohydrodynamic mean-field dynamo models: Bounds and reliable computation. *SIAM Journal on Applied Mathematics*, 80(5):2194–2225, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Fikl:2020:JRC

- [101] Alexandru Fikl and Daniel J. Bodony. Jump relations of certain hypersingular Stokes kernels on regular surfaces.

SIAM Journal on Applied Mathematics, 80(5):2226–2248, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Natchiar:2020:ACR

- [102] S. R. Monisha Natchiar, Richard E. Hewitt, Phillip D. D. Monks, and Peter Morrall. Asymptotics of coupled reaction–diffusion fronts with multiple static and diffusing reactants: Uranium oxidation in water vapor. *SIAM Journal on Applied Mathematics*, 80(5):2249–2270, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Zhang:2020:AFM

- [103] Bo Zhang and Haiwen Zhang. An approximate factorization method for inverse acoustic scattering with phaseless total-field data. *SIAM Journal on Applied Mathematics*, 80(5):2271–2298, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Dai:2020:MCH

- [104] Shibin Dai, Bo Li, and Toai Luong. Minimizers for the Cahn–Hilliard energy functional under strong anchoring conditions. *SIAM Journal on Applied Mathematics*, 80(5):2299–2317, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Fan:2020:ECS

- [105] Haitao Fan and Chi-Wang Shu. Existence and computation of solutions of a model of traffic involving hysteresis. *SIAM Journal on Applied Mathematics*, 80(6):2319–2337, 2020. CO-

DEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Lindstrom:2020:DSM

- [106] Torsten Lindström, Yuanji Cheng, and Subhendu Chakraborty. Destabilization, stabilization, and multiple attractors in saturated mixotrophic environments. *SIAM Journal on Applied Mathematics*, 80(6):2338–2364, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Zhang:2020:NFC

- [107] Luchan Zhang and Yang Xiang. A new formulation of coupling and sliding motions of grain boundaries based on dislocation structure. *SIAM Journal on Applied Mathematics*, 80(6):2365–2387, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Fan:2020:NHM

- [108] Yuwei Fan, Ruo Li, and Lingchao Zheng. A nonlinear hyperbolic model for radiative transfer equation in slab geometry. *SIAM Journal on Applied Mathematics*, 80(6):2388–2419, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Roques:2020:AGT

- [109] Lionel Roques, Florian Patout, Olivier Bonnefon, and Guillaume Martin. Adaptation in general temporally changing environments. *SIAM Journal on Applied Mathematics*, 80(6):2420–2447, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Kwiecinski:2020:IAI

- [110] James A. Kwiecinski, Alain Goriely, and S. Jon Chapman. Interactions of anisotropic inclusions on a fluid membrane. *SIAM Journal on Applied Mathematics*, 80(6):2448–2471, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Jenssen:2020:ABR

- [111] Helge Kristian Jenssen and Charis Tsikkou. Amplitude blowup in radial isentropic Euler flow. *SIAM Journal on Applied Mathematics*, 80(6):2472–2495, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Jiang:2020:SPN

- [112] Tianpeng Jiang, Yang Xiang, and Luchan Zhang. Stochastic Peierls–Nabarro model for dislocations in high entropy alloys. *SIAM Journal on Applied Mathematics*, 80(6):2496–2517, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Xu:2020:CLA

- [113] Jie Xu. Classifying local anisotropy formed by rigid molecules: Symmetries and tensors. *SIAM Journal on Applied Mathematics*, 80(6):2518–2546, 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Li:2020:SAI

- [114] Peijun Li, Jian Zhai, and Yue Zhao. Stability for the acoustic inverse source problem in inhomogeneous media. *SIAM Journal on Applied Mathematics*, 80

- (6):2547–2559, ????. 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).
Barucq:2020:EAA
- [115] Gunther Uhlmann and Yiran Wang. Convolutional neural networks in phase space and inverse problems. *SIAM Journal on Applied Mathematics*, 80(6):2560–2585, ????. 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).
Uhlmann:2020:CNN
- [116] Ryan M. Evans, Arvind Balijepalli, and Anthony J. Kearsley. Transport phenomena in biological field effect transistors. *SIAM Journal on Applied Mathematics*, 80(6):2586–2607, ????. 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).
Evans:2020:TPB
- [117] Zhenkun Wang and Hao Wang. Persistence and propagation of a PDE and discrete-time map hybrid animal movement model with habitat shift driven by climate change. *SIAM Journal on Applied Mathematics*, 80(6):2608–2630, ????. 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).
Wang:2020:PPP
- [118] Paulo Amorim. Predator–prey interactions with hunger structure. *SIAM Journal on Applied Mathematics*, 80(6):2631–2656, ????. 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).
Amorim:2020:PPI
- [119] H el ene Barucq, Florian Faucher, Damien Fournier, Laurent Gizon, and Ha Pham. Efficient and accurate algorithm for the full modal Green’s kernel of the scalar wave equation in helioseismology. *SIAM Journal on Applied Mathematics*, 80(6):2657–2683, ????. 2020. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).
Lawley:2021:EFI
- [120] Sean D. Lawley. The effects of fast inactivation on conditional first passage times of mortal diffusive searchers. *SIAM Journal on Applied Mathematics*, 81(1):1–24, ????. 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).
Hu:2021:ITH
- [121] Guang-Hui Hu, Manmohan Vashisth, and Jiaqing Yang. Inverse time-harmonic electromagnetic scattering from coated polyhedral scatterers with a single far-field pattern. *SIAM Journal on Applied Mathematics*, 81(1):25–46, ????. 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).
Gordon:2021:TFI
- [122] Peter V. Gordon, Uday G. Hegde, and Michael C. Hicks. On traveling front of ignition in co-flow laminar reactive jets. *SIAM Journal on Applied Mathematics*, 81(1):47–59, ????. 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).
Assier:2021:SOQ
- [123] Raphael C. Assier and I. David Abrahams. A surprising observation in

the quarter-plane diffraction problem. *SIAM Journal on Applied Mathematics*, 81(1):60–90, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Klingenberg:2021:REC

- [124] Christian Klingenberg, Ru-Yu Lai, and Qin Li. Reconstruction of the emission coefficient in the nonlinear radiative transfer equation. *SIAM Journal on Applied Mathematics*, 81(1):91–106, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Bessonov:2021:EDS

- [125] Nikolai Bessonov, Gennady Bocharov, Andreas Meyerhans, Vladimir Popov, and Vitaly Volpert. Existence and dynamics of strains in a nonlocal reaction–diffusion model of viral evolution. *SIAM Journal on Applied Mathematics*, 81(1):107–128, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Philip:2021:MES

- [126] Rachel M. Philip, Ian J. Hewitt, and Peter D. Howell. Modeling the effect of surfactant on droplet breakup in a turbulent flow. *SIAM Journal on Applied Mathematics*, 81(1):129–152, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Mazari:2021:FPN

- [127] Idriss Mazari and Domènec Ruiz-Balet. A fragmentation phenomenon for a nonenergetic optimal control problem: Optimization of the total population size in logistic diffusive models. *SIAM Journal on Applied Mathematics*, 81(1):153–172, 2021. CODEN

SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Laurent-Brouty:2021:MTF

- [128] Nicolas Laurent-Brouty, Guillaume Costeseque, and Paola Goatin. A macroscopic traffic flow model accounting for bounded acceleration. *SIAM Journal on Applied Mathematics*, 81(1):173–189, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Lee:2021:CPE

- [129] Wonjun Lee, Siting Liu, Hamidou Tembine, Wuchen Li, and Stanley Osher. Controlling propagation of epidemics via mean-field control. *SIAM Journal on Applied Mathematics*, 81(1):190–207, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Vynnycky:2021:NTR

- [130] Michael Vynnycky, Sean McKee, and Lesław Bieniasz. A NonLinear transient reaction–diffusion problem from electroanalytical chemistry. *SIAM Journal on Applied Mathematics*, 81(1):208–232, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Zhang:2021:SDT

- [131] Ruming Zhang. Spectrum decomposition of translation operators in periodic waveguide. *SIAM Journal on Applied Mathematics*, 81(1):233–257, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Gottlich:2021:SOT

- [132] Simone Göttlich, Michael Herty, Salissou Moutari, and Jennifer Weissen. Second-order traffic flow models on networks. *SIAM Journal on Applied Mathematics*, 81(1):258–281, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Kirsch:2021:EIP

- [133] Andreas Kirsch and Andreas Rieder. Erratum: Inverse Problems for Abstract Evolution Equations II: Higher Order Differentiability for Viscoelasticity. *SIAM Journal on Applied Mathematics*, 81(1):282–283, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). See [3].

Pedersen:2021:ACE

- [134] Geir K. Pedersen. Asymptotic, convergent, and exact truncating series solutions of the linear shallow water equations for channels with power law geometry. *SIAM Journal on Applied Mathematics*, 81(2):285–303, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Gartland:2021:EFI

- [135] Eugene C. Gartland, Jr. Electric-field-induced instabilities in nematic liquid crystals. *SIAM Journal on Applied Mathematics*, 81(2):304–334, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Kim:2021:MHD

- [136] Yong-Jung Kim and Hyowon Seo. Model for heterogeneous diffusion. *SIAM Journal on Applied Mathematics*, 81(2):335–354, 2021. CODEN

SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Collin:2021:JSP

- [137] Annabelle Collin, Thibaut Kritter, Clair Poignard, and Olivier Saut. Joint state-parameter estimation for tumor growth model. *SIAM Journal on Applied Mathematics*, 81(2):355–377, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Gomez:2021:AAL

- [138] Daniel Gomez, Michael J. Ward, and Juncheng Wei. An asymptotic analysis of localized three-dimensional spot patterns for the Gierer–Meinhardt model: Existence, linear stability, and slow dynamics. *SIAM Journal on Applied Mathematics*, 81(2):378–406, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Cosner:2021:EDM

- [139] Chris Cosner and Nancy Rodriguez. The effect of directed movement on the strong Allee effect. *SIAM Journal on Applied Mathematics*, 81(2):407–433, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Villa:2021:MEP

- [140] Chiara Villa, Mark A. Chaplain, and Tommaso Lorenzi. Modeling the emergence of phenotypic heterogeneity in vascularized tumors. *SIAM Journal on Applied Mathematics*, 81(2):434–453, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Cances:2021:GCM

- [141] Clément Cances and David Maltese. A gravity current model with capillary trapping for oil migration in multilayer geological basins. *SIAM Journal on Applied Mathematics*, 81(2):454–484, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Li:2021:IRS

- [142] Peijun Li and Xu Wang. Inverse random source scattering for the Helmholtz equation with attenuation. *SIAM Journal on Applied Mathematics*, 81(2):485–506, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Lauretano:2021:RBL

- [143] Giulio Lauretano and Renato Spigler. On the relation between the Lifshitz–Slyozov and the Lifshitz–Slyozov–Wagner models for supersaturated solutions. *SIAM Journal on Applied Mathematics*, 81(2):507–529, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Breit:2021:NMD

- [144] Markus Breit and Gillian Queisser. The necessary modeling detail for neuronal signaling: Poisson–Nernst–Planck and cable equation models in one and three dimensions. *SIAM Journal on Applied Mathematics*, 81(2):530–550, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Gonzalez:2021:TSH

- [145] Oscar Gonzalez. Theorems on the Stokesian hydrodynamics of a rigid filament in the limit of vanishing radius.

SIAM Journal on Applied Mathematics, 81(2):551–573, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Babb:2021:PLT

- [146] T. Babb, G. P. Benham, J. Bows, R. Gonzalez-Farina, K. B. Kiradjev, W. T. Lee, and S. Tibos. Predicting lift-off time when deep-frying potato dough snacks. *SIAM Journal on Applied Mathematics*, 81(2):574–590, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Kiradjev:2021:HMR

- [147] Kristian B. Kiradjev, Christopher J. Breward, Ian Griffiths, and Donald W. Schwendeman. A homogenized model for a reactive filter. *SIAM Journal on Applied Mathematics*, 81(2):591–619, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Barel:2021:PGA

- [148] Ariel Barel, Thomas Dagès, Rotem Manor, and Alfred M. Bruckstein. Probabilistic gathering of agents with simple sensors. *SIAM Journal on Applied Mathematics*, 81(2):620–640, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ndenda:2021:FOM

- [149] Joseph P. Ndenda, John Boscoh H. Njagarah, and Conrad B. Tabi. Fractional-order model for myxomatosis transmission dynamics: Significance of contact, vector control and culling. *SIAM Journal on Applied Mathematics*, 81(2):641–665, 2021. CODEN

SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Lu:2021:MAW

- [150] Wangtao Lu. Mathematical analysis of wave radiation by a step-like surface. *SIAM Journal on Applied Mathematics*, 81(2):666–693, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Rauch:2021:CGS

- [151] Jeffrey Rauch and L. Ridgway Scott. The charge-group summation method for electrostatics of periodic crystals. *SIAM Journal on Applied Mathematics*, 81(2):694–717, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Zheng:2021:MAI

- [152] Bo Zheng, Jianshe Yu, and Jia Li. Modeling and analysis of the implementation of the wolbachia incompatible and sterile insect technique for mosquito population suppression. *SIAM Journal on Applied Mathematics*, 81(2):718–740, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Mentus:2021:OMT

- [153] Cassidy Mentus and Marcus Roper. Optimal mixing in transport networks: Numerical optimization and analysis. *SIAM Journal on Applied Mathematics*, 81(3):741–764, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Timms:2021:ARL

- [154] Robert Timms, Scott G. Marquis, Valentin Sulzer, Colin P. Please, and S. Jonathan Chapman. Asymptotic

reduction of a lithium-ion pouch cell model. *SIAM Journal on Applied Mathematics*, 81(3):765–788, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Cantrell:2021:IFD

- [155] Robert Stephen Cantrell, Chris Cosner, and King-Yeung Lam. Ideal free dispersal under general spatial heterogeneity and time periodicity. *SIAM Journal on Applied Mathematics*, 81(3):789–813, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Garnier:2021:PCA

- [156] Josselin Garnier. Passive communication with ambient noise. *SIAM Journal on Applied Mathematics*, 81(3):814–833, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Skene:2021:TLT

- [157] David M. Skene and Luke G. Bennetts. A transition-loss theory for waves reflected and transmitted by an overwashed body. *SIAM Journal on Applied Mathematics*, 81(3):834–852, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Friesen:2021:SWF

- [158] Martin Friesen, Hanno Gottschalk, Barbara Rüdiger, and Antoine Tordeux. Spontaneous wave formation in stochastic self-driven particle systems. *SIAM Journal on Applied Mathematics*, 81(3):853–870, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Nicholls:2021:SLS

- [159] David P. Nicholls and Xin Tong. Simulation of localized surface plasmon resonances in two dimensions via impedance–impedance operators. *SIAM Journal on Applied Mathematics*, 81(3):871–896, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Bevilacqua:2021:MMT

- [160] Giulia Bevilacqua, Pasquale Ciarletta, and Alfio Quarteroni. Morphomechanical model of the torsional C-looping in the embryonic heart. *SIAM Journal on Applied Mathematics*, 81(3):897–918, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Bressloff:2021:DSC

- [161] Paul C. Bressloff. Directional search-and-capture model of cytoneme-based morphogenesis. *SIAM Journal on Applied Mathematics*, 81(3):919–938, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Albuquerque:2021:LSB

- [162] Yuri F. Albuquerque, Antoine Laurain, and Irwin Yousept. Level set-based shape optimization approach for sharp-interface reconstructions in time-domain full waveform inversion. *SIAM Journal on Applied Mathematics*, 81(3):939–964, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Lewis:2021:EET

- [163] Owen L. Lewis and James P. Keener. Enhanced electrodiffusive transport

across a mucus layer. *SIAM Journal on Applied Mathematics*, 81(3):965–981, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Cox:2021:SMN

- [164] Alexander M. Cox, Emma Horton, Andreas E. Kyprianou, and Denis Villemonais. Stochastic methods for neutron transport equation III: Generational many-to-one and k_{eff} . *SIAM Journal on Applied Mathematics*, 81(3):982–1001, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Pandian:2021:SDS

- [165] Arun Pandian, Jiahe Tony Li, and Snezhana I. Abarzhi. Scale-dependent and self-similar Rayleigh–Taylor and Richtmyer–Meshkov dynamics induced by acceleration varying with length scale. *SIAM Journal on Applied Mathematics*, 81(3):1002–1019, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ando:2021:SLP

- [166] Kazunori Ando, Hyeonbae Kang, Yoshihisa Miyanishi, and Takashi Nakazawa. Surface localization of plasmons in three dimensions and convexity. *SIAM Journal on Applied Mathematics*, 81(3):1020–1033, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Chapman:2021:HFT

- [167] S. Jonathan Chapman and Zachary M. Wilmott. Homogenization of flow through periodic networks. *SIAM Journal on Applied Mathematics*, 81

(3):1034–1051, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Liu:2021:TUB

- [168] Jian-Guo Liu, Min Tang, Li Wang, and Zhennan Zhou. Toward understanding the boundary propagation speeds in tumor growth models. *SIAM Journal on Applied Mathematics*, 81(3):1052–1076, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Yousefnezhad:2021:OCB

- [169] Mohsen Yousefnezhad, Chiu-Yen Kao, and Seyyed Abbas Mohammadi. Optimal chemotherapy for brain tumor growth in a reaction-diffusion model. *SIAM Journal on Applied Mathematics*, 81(3):1077–1097, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Fan:2021:GRP

- [170] Chao Fan, Bo Li, and Michael R. White. A generalized Rayleigh–Plesset equation for ions with solvent fluctuations. *SIAM Journal on Applied Mathematics*, 81(3):1098–1115, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Khademi:2021:AOA

- [171] Amin Khademi and Xin Liu. Asymptotically optimal allocation policies for transplant queueing systems. *SIAM Journal on Applied Mathematics*, 81(3):1116–1140, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Courtais:2021:SOF

- [172] Alexis Courtais, Abderrazak M. Latifi, François Lesage, and Yannick Privat. Shape optimization of fixed-bed reactors in process engineering. *SIAM Journal on Applied Mathematics*, 81(3):1141–1165, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Kirkland:2021:IVC

- [173] Stephen Kirkland, Zhisheng Shuai, P. van den Driessche, and Xueying Wang. Impact of varying community networks on disease invasion. *SIAM Journal on Applied Mathematics*, 81(3):1166–1189, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Kodsi:2021:BVP

- [174] Costy Kodsi and Andrey P. Jivkov. Boundary value problem on a weighted graph relevant to the static analysis of truss structures. *SIAM Journal on Applied Mathematics*, 81(3):1190–1201, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Choi:2021:SPB

- [175] Sun-Ho Choi and Hyowon Seo. Synchronization in a power balance system with inertia and nonlinear derivatives. *SIAM Journal on Applied Mathematics*, 81(3):1202–1225, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ferreira:2021:LSL

- [176] J. A. Ferreira, Paula de Oliveira, P. M. da Silva, and M. Grassi. From life-

saving to life-threatening: a mathematical model to simulate bacterial infections in surgical procedures. *SIAM Journal on Applied Mathematics*, 81(3):1226–1247, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Potts:2021:SSS

- [177] Jonathan R. Potts and Kevin J. Painter. Stable steady-state solutions of some biological aggregation models. *SIAM Journal on Applied Mathematics*, 81(3):1248–1263, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Nouaoura:2021:MAT

- [178] Sarra Nouaoura, Nahla Abdellatif, Radhouane Fekih-Salem, and Tewfik Sari. Mathematical analysis of a three-tiered model of anaerobic digestion. *SIAM Journal on Applied Mathematics*, 81(3):1264–1286, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Stana:2021:DDC

- [179] Remus Stana, Grant Lythe, and Carmen Molina-París. Diffusion in a disk with a circular inclusion. *SIAM Journal on Applied Mathematics*, 81(3):1287–1302, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ackley:2021:DKP

- [180] Matthew Ackley and Peter Stechlin. Determining key parameters in riots using lexicographic directional differentiation. *SIAM Journal on Applied Mathematics*, 81(3):1303–1331, 2021.

CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Griesmaier:2021:EMI

- [181] Roland Griesmaier and Bastian Harrach. Erratum: Monotonicity in inverse medium scattering on unbounded domains. *SIAM Journal on Applied Mathematics*, 81(3):1332–1337, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). See [2].

Yang:2021:ANS

- [182] Chang Yang and Léon Matar Tine. Analysis and numerical simulations of a reaction–diffusion model with fixed active bodies. *SIAM Journal on Applied Mathematics*, 81(4):1339–1360, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

King:2021:MAN

- [183] John R. King, Jakub Köry, and Mariya Ptashnyk. Multiscale analysis of nutrient uptake by plant roots with sparse distribution of root hairs: Nonstandard scaling. *SIAM Journal on Applied Mathematics*, 81(4):1361–1388, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Yu:2021:LGS

- [184] Yue Yu, Gianmarc Grazioli, Nolan E. Phillips, and Carter T. Butts. Local graph stability in exponential family random graph models. *SIAM Journal on Applied Mathematics*, 81(4):1389–1415, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Mahler:2021:ACM

- [185] Barbara I. Mahler. Analysis of contagion maps on a class of networks that are spatially embedded in a torus. *SIAM Journal on Applied Mathematics*, 81(4):1416–1440, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Dekens:2021:FPS

- [186] Léonard Dekens and Florian Lavigne. Front propagation of a sexual population with evolution of dispersion: a formal analysis. *SIAM Journal on Applied Mathematics*, 81(4):1441–1460, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Kaltenbacher:2021:ILT

- [187] Barbara Kaltenbacher and Vanja Nikolić. The inviscid limit of third-order linear and nonlinear acoustic equations. *SIAM Journal on Applied Mathematics*, 81(4):1461–1482, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Bennetts:2021:CRI

- [188] L. G. Bennetts and M. H. Meylan. Complex resonant ice shelf vibrations. *SIAM Journal on Applied Mathematics*, 81(4):1483–1502, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Canic:2021:NGM

- [189] Suncica Canić, Yifan Wang, and Martina Bukac. A next-generation mathematical model for drug-eluting stents. *SIAM Journal on Applied Mathematics*, 81(4):1503–1529, 2021. CO-

DEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Kow:2021:CNS

- [190] Pu-Zhao Kow and Jenn-Nan Wang. On the characterization of nonradiating sources for the elastic waves in anisotropic inhomogeneous media. *SIAM Journal on Applied Mathematics*, 81(4):1530–1551, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Koprucki:2021:DHW

- [191] Thomas Koprucki, Anieza Maltsi, and Alexander Mielke. On the Darwin–Howie–Whelan equations for the scattering of fast electrons described by the Schrödinger equation. *SIAM Journal on Applied Mathematics*, 81(4):1552–1578, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Feng:2021:RDS

- [192] Tao Feng, Zhipeng Qiu, and Yun Kang. Recruitment dynamics of social insect colonies. *SIAM Journal on Applied Mathematics*, 81(4):1579–1599, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Dong:2021:PSS

- [193] Fang-Di Dong, Jin Shang, William Fagan, and Bingtuan Li. Persistence and spread of solutions in a two-species Lotka–Volterra competition–diffusion model with a shifting habitat. *SIAM Journal on Applied Mathematics*, 81(4):1600–1622, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Joshi:2021:ANI

- [194] Badal Joshi and Gheorghe Craciun. Autocatalytic networks: an intimate relation between network topology and dynamics. *SIAM Journal on Applied Mathematics*, 81(4):1623–1644, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ma:2021:MPN

- [195] Manman Ma, Zhenli Xu, and Liwei Zhang. Modified Poisson–Nernst–Planck model with Coulomb and hard-sphere correlations. *SIAM Journal on Applied Mathematics*, 81(4):1645–1667, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Yaman:2021:IPP

- [196] Olha Ivanyshyn Yaman and Frédérique Le Louër. An inverse parameter problem with generalized impedance boundary condition for two-dimensional linear viscoelasticity. *SIAM Journal on Applied Mathematics*, 81(4):1668–1690, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Gorder:2021:LBI

- [197] Robert A. Van Gorder, Alissa Kamilova, Rolf G. Birkeland, and Andrew L. Krause. Locating the baking isotherm in a Söderberg electrode: Analysis of a moving thermistor model. *SIAM Journal on Applied Mathematics*, 81(4):1691–1716, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Polk:2021:NWD

- [198] Sam L. Polk and Bruce M. Boghosian. The nonuniversality of wealth distribution tails near wealth condensation criticality. *SIAM Journal on Applied Mathematics*, 81(4):1717–1741, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Cassidy:2021:DDD

- [199] Tyler Cassidy. Distributed delay differential equation representations of cyclic differential equations. *SIAM Journal on Applied Mathematics*, 81(4):1742–1766, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Turzi:2021:DDT

- [200] Stefano Turzi. Drift-diffusion transport in a randomly inhomogeneous one-dimensional medium. *SIAM Journal on Applied Mathematics*, 81(4):1767–1780, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

El-Morshedy:2021:ACD

- [201] Hassan A. El-Morshedy and Alfonso Ruiz-Herrera. Asymptotic convergence in delay differential equations arising in epidemiology and physiology. *SIAM Journal on Applied Mathematics*, 81(4):1781–1798, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Bao:2021:ISP

- [202] Gang Bao, Xiang Xu, and Jian Zhai. Inverse spectral problem for a damped wave operator. *SIAM Journal on Applied Mathematics*, 81(5):1799–1820,

???? 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Robert:2021:SMNa

- [203] Philippe Robert and Gaëtan Vignoud. Stochastic models of neural synaptic plasticity. *SIAM Journal on Applied Mathematics*, 81(5):1821–1846, ????. 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Parshad:2021:SNR

- [204] Rana D. Parshad, Kwadwo Antwi-Fordjour, and Eric M. Takyi. Some novel results in two species competition. *SIAM Journal on Applied Mathematics*, 81(5):1847–1869, ????. 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Wentz:2021:BCS

- [205] Jacqueline M. Wentz and David M. Bortz. Boundedness of a class of spatially discrete reaction–diffusion systems. *SIAM Journal on Applied Mathematics*, 81(5):1870–1892, ????. 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Forien:2021:EMV

- [206] Raphaël Forien, Guodong Pang, and Étienne Pardoux. Epidemic models with varying infectivity. *SIAM Journal on Applied Mathematics*, 81(5):1893–1930, ????. 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Betermin:2021:TFO

- [207] Laurent Betermin. Theta functions and optimal lattices for a grid cells model.

SIAM Journal on Applied Mathematics, 81(5):1931–1953, ????. 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Klibanov:2021:LLI

- [208] Michael V. Klibanov, Jingzhi Li, and Wenlong Zhang. Linear lavrent’ev integral equation for the numerical solution of a nonlinear coefficient inverse problem. *SIAM Journal on Applied Mathematics*, 81(5):1954–1978, ????. 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Arens:2021:MEC

- [209] Tilo Arens, Roland Griesmaier, and Marvin Knöller. Maximizing the electromagnetic chirality of thin dielectric tubes. *SIAM Journal on Applied Mathematics*, 81(5):1979–2006, ????. 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Bueler:2021:CLF

- [210] Ed Bueler. Conservation laws for free-boundary fluid layers. *SIAM Journal on Applied Mathematics*, 81(5):2007–2032, ????. 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Hansen:2021:ODD

- [211] Jakob Hansen and Robert Ghrist. Opinion dynamics on discourse sheaves. *SIAM Journal on Applied Mathematics*, 81(5):2033–2060, ????. 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Schreyer:2021:MRM

- [212] Lynn Schreyer, Nikos Voulgarakis, Zachary Hilliard, Sergey Lapin, and

Loren Cobb. Modeling refugee movement based on a continuum mechanics phase-field approach of porous media. *SIAM Journal on Applied Mathematics*, 81(5):2061–2082, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Bertoglio:2021:RPM

- [213] Cristobal Bertoglio, David Nolte, Grigory Panasenکو, and Konstantinas Pileckas. Reconstruction of the pressure in the method of asymptotic partial decomposition for the flows in tube structures. *SIAM Journal on Applied Mathematics*, 81(5):2083–2110, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Dong:2021:ACP

- [214] Jiu-Gang Dong. Avoiding collisions and pattern formation in flocks. *SIAM Journal on Applied Mathematics*, 81(5):2111–2129, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ha:2021:DSA

- [215] Seung-Yeal Ha and Hansol Park. A dynamical systems approach for the shape matching of polytopes along rigid-body motions. *SIAM Journal on Applied Mathematics*, 81(5):2130–2152, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Li:2021:DFG

- [216] Ruo Li, Weiming Li, and Lingchao Zheng. Direct flux gradient approximation to moment closure of kinetic equations. *SIAM Journal on Applied Mathematics*, 81(5):2153–2179, 2021.

CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Zabarankin:2021:IPD

- [217] Michael Zabarankin and Ying Zhang. Inverse problem for drop deformation in nonlinear electrohydrodynamics. *SIAM Journal on Applied Mathematics*, 81(5):2180–2194, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Schreiber:2021:EQS

- [218] Sebastian J. Schreiber, Shuo Huang, Jifa Jiang, and Hao Wang. Extinction and quasi-stationarity for discrete-time, endemic SIS and SIR models. *SIAM Journal on Applied Mathematics*, 81(5):2195–2217, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Hodneland:2021:WPD

- [219] Erlend Hodneland, Xiaozhe Hu, and Jan M. Nordbotten. Well-posedness and discretization for a class of models for mixed-dimensional problems with high-dimensional gap. *SIAM Journal on Applied Mathematics*, 81(5):2218–2245, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Gorb:2021:AEH

- [220] Yuliya Gorb and Yuri Kuznetsov. Asymptotic expansions for high-contrast scalar and vectorial PDEs. *SIAM Journal on Applied Mathematics*, 81(5):2246–2264, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Oblakova:2021:RSC

- [221] A. Oblakova, A. Al Hanbali, R. J. Boucherie, J. C. W. van Ommeren, and W. H. M. Zijm. Roots, symmetry, and contour integrals in queuing-type systems. *SIAM Journal on Applied Mathematics*, 81(5):2265–2295, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Kawano:2021:DPS

- [222] Alexandre Kawano, Antonino Morassi, and Ramón Zaera. Detecting a prey in a spider orb-Web from in-plane vibration. *SIAM Journal on Applied Mathematics*, 81(6):2297–2322, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Petit:2021:RWD

- [223] Julien Petit, Renaud Lambiotte, and Timoteo Carletti. Random walks on dense graphs and graphons. *SIAM Journal on Applied Mathematics*, 81(6):2323–2345, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Coclite:2021:GEE

- [224] G. M. Coclite, F. Maddalena, G. Puglisi, M. Romano, and G. Saccomandi. The Gardner equation in elastodynamics. *SIAM Journal on Applied Mathematics*, 81(6):2346–2361, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Robert:2021:SMNb

- [225] Philippe Robert and Gaëtan Vignoud. Stochastic models of neural synaptic plasticity: a scaling approach. *SIAM Journal on Applied Mathematics*, 81

(6):2362–2386, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ji:2021:SRM

- [226] Xia Ji and Xiaodong Liu. Source reconstruction with multifrequency sparse scattered fields. *SIAM Journal on Applied Mathematics*, 81(6):2387–2404, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Tao:2021:DDN

- [227] Yiwen Tao, Sue Ann Campbell, and Francis J. Poulin. Dynamics of a diffusive nutrient-phytoplankton-zooplankton model with spatio-temporal delay. *SIAM Journal on Applied Mathematics*, 81(6):2405–2432, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Levitin:2021:IEL

- [228] Michael Levitin, Peter Monk, and Virginia Selgas. Impedance eigenvalues in linear elasticity. *SIAM Journal on Applied Mathematics*, 81(6):2433–2456, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Alexander:2021:RSE

- [229] Amanda M. Alexander and Sean D. Lawley. Reaction–subdiffusion equations with species-dependent movement. *SIAM Journal on Applied Mathematics*, 81(6):2457–2479, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Cheng:2021:LME

- [230] Jiaqi Cheng, Peter Chesson, and Xiaoying Han. The lottery model for ecological competition in nonstationary environments. *SIAM Journal on Applied Mathematics*, 81(6):2480–2502, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Li:2021:SIS

- [231] Peijun Li, Xiaohua Yao, and Yue Zhao. Stability for an inverse source problem of the biharmonic operator. *SIAM Journal on Applied Mathematics*, 81(6):2503–2525, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Crowdy:2021:VMF

- [232] Darren G. Crowdy. Viscous Marangoni flow driven by insoluble surfactant and the complex Burgers equation. *SIAM Journal on Applied Mathematics*, 81(6):2526–2546, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Dang:2021:HNS

- [233] Thuyen Dang, Yuliya Gorb, and Silvia Jiménez Bolaños. Homogenization of nondilute suspension of viscous fluid with magnetic particles. *SIAM Journal on Applied Mathematics*, 81(6):2547–2568, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Hu:2021:THA

- [234] Guanghui Hu, Wangtao Lu, and Andreas Rathsfeld. Time-harmonic acoustic scattering from locally perturbed periodic curves. *SIAM Journal on*

Applied Mathematics, 81(6):2569–2595, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Ledoux:2021:ABE

- [235] Jeremy Ledoux, Sebastián Riffo, and Julien Salomon. Analysis of the blade element momentum theory. *SIAM Journal on Applied Mathematics*, 81(6):2596–2621, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Isaacson:2021:HRD

- [236] Samuel A. Isaacson, Jingwei Ma, and Konstantinos Spiliopoulos. How reaction-diffusion PDEs approximate the large-population limit of stochastic particle models. *SIAM Journal on Applied Mathematics*, 81(6):2622–2657, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Mercier:2021:VMA

- [237] Jean-François Mercier. Variational methods for acoustic radiation in a duct with a shear flow and an absorbing boundary. *SIAM Journal on Applied Mathematics*, 81(6):2658–2683, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Cohen:2021:NMA

- [238] Reed B. Cohen and Jiayu Li. A novel model and its analysis on the metabolic regulations of glucose, insulin, and glucagon. *SIAM Journal on Applied Mathematics*, 81(6):2684–2703, 2021. CODEN

SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Böttcher:2021:CQR

- [239] Lucas Böttcher and Mason A. Porter. Classical and quantum random-walk centrality measures in multilayer networks. *SIAM Journal on Applied Mathematics*, 81(6):2704–2724, 2021. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Deng:2022:GPE

- [240] Youjun Deng, Hongyu Liu, Xianchao Wang, and Wei Wu. On geometrical properties of electromagnetic transmission eigenfunctions and artificial mirage. *SIAM Journal on Applied Mathematics*, 82(1):1–24, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1413547>.

Lunz:2022:ONC

- [241] Davin Lunz. Optimizing noisy complex systems liable to failure. *SIAM Journal on Applied Mathematics*, 82(1):25–48, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1416126>.

Lu:2022:DRT

- [242] Jianfeng Lu, Jeremy L. Marzuola, and Alexander B. Watson. Defect resonances of truncated crystal structures. *SIAM Journal on Applied Mathematics*, 82(1):49–74, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1415601>.

Ambrosi:2022:EMM

- [243] D. Ambrosi, L. Deorsola, S. Turzi, and M. Zoppello. Elementary mechanics of the mitral valve. *SIAM Journal on Applied Mathematics*, 82(1):75–94, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1416655>.

Zhou:2022:SME

- [244] Peng Zhou and Qihua Huang. A spatiotemporal model for the effects of toxicants on populations in a polluted river. *SIAM Journal on Applied Mathematics*, 82(1):95–118, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1405629>.

Li:2022:MRB

- [245] Hongjie Li, Hongyu Liu, and Jun Zou. Minnaert resonances for bubbles in soft elastic materials. *SIAM Journal on Applied Mathematics*, 82(1):119–141, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1400572>.

Zhigun:2022:NDR

- [246] Anna Zhigun and Christina Surulescu. A novel derivation of rigorous macroscopic limits from a micro-meso description of signal-triggered cell migration in fibrous environments. *SIAM Journal on Applied Mathematics*, 82(1):142–167, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1365442>.

Psaltis:2022:HSW

- [247] Steven Psaltis, Robert Timms, Colin Please, and S. Jonathan Chapman. Homogenization of spirally wound high-contrast layered materials. *SIAM Journal on Applied Mathematics*, 82(1):168–193, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1377904>.

Gamba:2022:RTP

- [248] Irene M. Gamba, Qin Li, and Anjali Nair. Reconstructing the thermal phonon transmission coefficient at solid interfaces in the phonon transport equation. *SIAM Journal on Applied Mathematics*, 82(1):194–220, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1381666>.

Huang:2022:SNT

- [249] Kuang Huang and Qiang Du. Stability of a nonlocal traffic flow model for connected vehicles. *SIAM Journal on Applied Mathematics*, 82(1):221–243, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1355732>.

Liu:2022:MSM

- [250] Xiaodong Liu, Shixu Meng, and Bo Zhang. Modified sampling method with near field measurements. *SIAM Journal on Applied Mathematics*, 82(1):244–266, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1432235>.

Fogelson:2022:DFB

- [251] Aaron L. Fogelson, Anna C. Nelson, Cheryl Zapata-Allegro, and James P. Keener. Development of fibrin branch structure before and after gelation. *SIAM Journal on Applied Mathematics*, 82(1):267–293, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1401024>.

Miroshnichenko:2022:PLM

- [252] Taisia Miroshnichenko, Vladimir Gubernov, Sergey Minaev, Vladimir Mislavskii, and Junnosuke Okajima. Piecewise linear model of phytoplankton wave propagation in periodical vortex flow. *SIAM Journal on Applied Mathematics*, 82(1):294–312, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1405861>.

Kincl:2022:TAR

- [253] Ondrej Kincl, Michal Pavelka, Frantisek Marsík, and Miroslav Sedláček. Theoretical analysis of rolling fluid turbines. *SIAM Journal on Applied Mathematics*, 82(1):313–329, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1392796>.

Altmann:2022:LDG

- [254] Robert Altmann, Patrick Henning, and Daniel Peterseim. Localization and delocalization of ground states of Bose–Einstein condensates under disorder. *SIAM Journal on Applied Mathematics*, 82(1):330–358, ???

2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1342434>.

Ballif:2022:ASS

- [255] Guillaume Ballif, Frédérique Clément, and Romain Yvinec. Averaging of a stochastic slow-fast model for population dynamics: Application to the development of ovarian follicles. *SIAM Journal on Applied Mathematics*, 82(1):359–380, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1409615>.

Liu:2022:QLT

- [256] A. Liu and F. M. G. Magpantay. A quantification of long transient dynamics. *SIAM Journal on Applied Mathematics*, 82(2):381–407, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1367131>.

Acosta:2022:NUI

- [257] Sebastian Acosta, Gunther Uhlmann, and Jian Zhai. Nonlinear ultrasound imaging modeled by a Westervelt equation. *SIAM Journal on Applied Mathematics*, 82(2):408–426, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1431813>.

Darde:2022:CAE

- [258] J. Dardé, N. Hyvönen, T. Kuutela, and T. Valkonen. Contact adapting electrode model for electrical impedance tomography. *SIAM Journal on Applied Mathematics*, 82(2):427–449, 2022.

2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1396125>.

Brun:2022:MPS

- [259] Mats K. Brun, Elyes Ahmed, Jan M. Nordbotten, and Nils ChrStenseth. Modeling the process of speciation using a multiscale framework including a posteriori error estimates. *SIAM Journal on Applied Mathematics*, 82(2):450–475, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1405228>.

Marchner:2022:CNA

- [260] Philippe Marchner, Xavier Antoine, Christophe Geuzaine, and Hadrien Bériot. Construction and numerical assessment of local absorbing boundary conditions for heterogeneous time-harmonic acoustic problems. *SIAM Journal on Applied Mathematics*, 82(2):476–501, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1414929>.

Ciallella:2022:LDR

- [261] Alessandro Ciallella, Emilio N. M. Cirillo, and Barbara Vantaggi. Localization of defects via residence time measures. *SIAM Journal on Applied Mathematics*, 82(2):502–525, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1380284>.

Buze:2022:SFA

- [262] Maciej Buze, Thoms E. Woolley, and Angela Mihai. A stochastic framework for atomistic fracture. *SIAM Journal on Applied Mathematics*, 82(2):526–548, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1416436>.

Benes:2022:QNA

- [263] Michal Benes, Miroslav Kolár, and Daniel Sevcovic. Qualitative and numerical aspects of a motion of a family of interacting curves in space. *SIAM Journal on Applied Mathematics*, 82(2):549–575, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1417181>.

Liu:2022:NMP

- [264] Shuang Liu, Yuan Lou, and Pengfei Song. A new monotonicity for principal eigenvalues with applications to time-periodic patch models. *SIAM Journal on Applied Mathematics*, 82(2):576–601, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/20M1320973>.

Tang:2022:AAS

- [265] Tao Tang, Boyi Wang, and Jiang Yang. Asymptotic analysis on the sharp interface limit of the time-fractional Cahn–Hilliard equation. *SIAM Journal on Applied Mathematics*, 82(3):773–792, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1427863>.

Park:2022:CGS

- [266] Youngmin Park, Prashant Singh, and Thomas G. Fai. Coarse-grained stochastic model of myosin-driven vesicles into dendritic spines. *SIAM Journal on Applied Mathematics*, 82(3):793–820, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1434180>.

Nie:2022:EDD

- [267] Hua Nie, Yao Shi, and Jianhua Wu. The effect of diffusion on the dynamics of a predator–prey chemostat model. *SIAM Journal on Applied Mathematics*, 82(3):821–848, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1432090>.

Negrón-Marrero:2022:IEC

- [268] Pablo V. Negrón-Marrero and Jeyabal Sivaloganathan. Infinite energy cavitating solutions: A variational approach. *SIAM Journal on Applied Mathematics*, 82(3):849–871, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1427711>.

Nethercote:2022:DAW

- [269] Matthew A. Nethercote, Anastasia V. Kisil, and Raphael C. Assier. Diffraction of acoustic waves by a wedge of point scatterers. *SIAM Journal on Applied Mathematics*, 82(3):872–898, ??? 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1438608>.

Gao:2022:EAI

- [270] Daozhou Gao, Justin M. W. Munganga, P. van den Driessche, and Lei Zhang. Effects of asymptomatic infections on the spatial spread of infectious diseases. *SIAM Journal on Applied Mathematics*, 82(3):899–923, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1398434>.

Dondl:2022:EMS

- [271] Patrick Dondl, Patrina S. P. Poh, and Marius Zeinhofer. An efficient model for scaffold mediated bone regeneration. *SIAM Journal on Applied Mathematics*, 82(3):924–949, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1401887>.

Gu:2022:GRM

- [272] Binan Gu, Lou Kondic, and Linda J. Cummings. A graphical representation of membrane filtration. *SIAM Journal on Applied Mathematics*, 82(3):950–975, 2022. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1424743>.