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the property that a node’s  $i$ th forward pointer points to the next node of level  $i$  or higher. It is shown that skip lists can efficiently implement abstract data types such as dictionaries and ordered lists in that the expected time to search for an item is  $O(\log n)$ .

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ware, are available at the authors' FTP site at [ftp://grilled.cs.wisc.edu/technical\\_papers/fuzz.ps](ftp://grilled.cs.wisc.edu/technical_papers/fuzz.ps) and [ftp://grilled.cs.wisc.edu/technical\\_papers/fuzz-revisited.ps](ftp://grilled.cs.wisc.edu/technical_papers/fuzz-revisited.ps).

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tions are used by a propositional theorem prover to generate a proof that it is possible to compute a certain datum given some other data. This (constructive) proof is used to synthesize a program which computes the datum. So PRIZ has a quite non-standard logic component: compile-time proof and program generation instead of run-time clause resolution. These techniques are called Propositional Logic Programming and Structural Program Synthesis. NUT is a prototype-based (as opposed to class-based) language: any object can be used as a template (type) for a new object (and of course as a component of a new object). Limited polymorphism is supported through a generic type (**any**). It is notable that some of the modern programming paradigms (constraint programming, object-orientation, employing logic in computation) have been considered so early.

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Adams:1999:UE

Frailey:1999:LSE

Dutton:1999:CSN

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