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**Dexter C Kozen\*** ([kozen@cs.cornell.edu](mailto:kozen@cs.cornell.edu)), Computer Science Dept, 5143 Upson Hall, Cornell University, Ithaca, NY 14853-7501. *Kleene Algebra with Tests and the Static Analysis of Programs.*

We propose a general framework for the static analysis of programs based on Kleene algebra with tests (KAT). We show how KAT can be used to statically verify compliance with safety policies specified by security automata. We prove soundness and completeness over relational interpretations. We illustrate the method on an example involving the correctness of a device driver. (Received June 16, 2011)