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► **To cite this version:**

Byron Cook. Automatic Termination Proofs for Software. Automatic Verification of Critical Systems, Sep 2006, Nancy/France, pp.2. inria-00091655

**HAL Id: inria-00091655**

**<https://inria.hal.science/inria-00091655>**

Submitted on 8 Sep 2006

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# Automatic termination proofs for software

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**Abstract**

In this talk I will describe recent advances in the area of automatic program termination analysis. In particular, I will describe the development of several automatic tools, called TERMINATOR and MUTANT, which implement new termination analysis algorithms. These tools have been used to prove that Windows device driver dispatch routines always return control back to their caller. The tools have also found a number of critical termination bugs in device drivers.

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