



# Understanding and Verifying JavaScript Programs

Philippa Gardner

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**Amphi 24**

4, place Jussieu  
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à 18h00**

The dynamic nature of JavaScript, together with its complex semantics, makes it a difficult target for logical analysis. This talk will describe JaVerT, a JavaScript Verification Toolchain, which we believe provides the first logic-based symbolic analysis tool for JavaScript. A key goal of the project has been to establish trust in JaVerT, both through theoretical results and comprehensive testing. The talk is aimed at a general audience interested in program verification. Knowledge of JavaScript is not assumed.

This talk describes joint work with Jose Fragoso Santos, Petar Maksimovic, Daiva Naudziuniene and Thomas Wood.

Philippa Gardner is a Professor in the Department of Computing at Imperial College London, and Director of the Research Institute on Verified Trustworthy Software Systems (VeTSS) funded by GCHQ in association with EPSRC. Her current research focuses on program verification: in particular, reasoning about web programs and reasoning about concurrent programs. She is the leader of the Program Specification and Verification Group at Imperial.

She completed her PhD thesis, supervised by Professor Gordon Plotkin FRS at Edinburgh in 1992. She moved to Cambridge in 1998 on an EPSRC Advanced Fellowship, hosted by Professor Robin Milner FRS. She obtained a lectureship at Imperial in 2001, and became professor in 2009. She held a Microsoft Research Cambridge/Royal Academy of Engineering Senior Fellowship from 2005 to 2010 at Imperial.

