Most Notable Paper Award

19th Dynamic Languages Symposium
December 2023, Cascais, Portugal

Cast Insertion Strategies for Gradually-Typed Objects
Esteban Allende, Johan Fabry, Éric Tanter

This paper explored the costs, both at micro and macro scale, of various strategies for protecting gradual types in a gradually-typed programming language, examining how different strategies affected untyped, typed, or both components of code. It is a seminal contribution to understanding the performance of gradual typing, which since then has been an area of important research. The strategies used in gradually-typed languages today can trace their lineage back to the strategies described and proposed in this paper. In particular, the proposed hybrid approach has been adapted time and time again by many systems, giving this work a lasting impact beyond its original scope.

Stefan Marr
Steering Committee Chair

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