Best Tool Paper Award
Handed out at ETAPS 2024
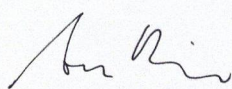
Formalizing Date Arithmetic and
Statically Detecting Ambiguities for the Law

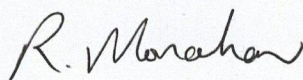### Raphaël Monat, Aymeric Fromherz, and Denis Merigoux

This outstanding ESOP'24 paper describes the development of a novel tool, i.e., the domain-specific language Catala and its application to French law. It is a fantastic example of the application of techniques from programming languages to solve a real-world problem, and is about formalizing computation with date information in legal contexts, such as applying for social benefits or whether an application has been filed on time.

The novelty of the problem was particularly appreciated. This paper is a very nicely executed analysis of the problem, well illustrated with many examples. There is a clear non-trivial theory and an effective implementation that found issues and showed counterexamples.
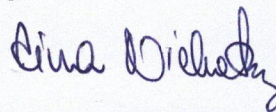
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