## **Co-author Declaration**

A summary of work performed by Thomas Seiller on "pymwp: A Static Analyzer Determining Polynomial Growth Bounds."

Thomas Seiller contributed greatly to the theory implemented in pymwp. Specifically, wrt. the paper, Thomas was involved in discussion about techniques to expose derivation failure (Sect 4.2). His contributions also helped improve the paper presentation (for example by suggesting to develop Table 2) and ground the soundness result (for example by leveraging coverings).

Signed by:	
C0EB208754CE442	5/28/2025   07:25:33 EDT
Thomas Seiller	Date signed

## **Co-author Declaration**

A summary of work performed by Thomas Seiller on "Distributing and Parallelizing Non-canonical Loops."

Thomas Seiller worked on the theory of the loop parallelization. The parallelization idea follows from earlier work with Thomas Rubiano. Thomas Seiller and Thomas Rubiano developed the dependency analysis needed to split loops. In addition, Thomas Seiller actively discussed the scope of the work and strategies of parallelization with OpenMP directives.

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Thomas Seiller	Date signed

## **Co-author Declaration**

A summary of work performed by Thomas Seiller on "mwp-Analysis Improvement and Implementation: Realizing Implicit Computational Complexity."

Thomas Seiller contributed greatly to the adjusted theory of the flow calculus (Sect. 3) and is the main architect behind the treatment of function calls (Sect. 4.1). The efficient computation with polynomial structures (Sect. 4.3) was written almost entirely by Thomas Seiller. Introducing  $\infty$  coefficient, the deterministic rules, and how to compute with the extended set of coefficients was defined in collaboration by Thomas Seiller and Clément Aubert.

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