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Prof. Dr. Don Batory
The University of Texas at Austin
Chair of the SPLC MIP Award Selection Committee

a. Univ.-Prof. Dr. Paul Grünbacher
Software Systems Engineering
Head of Christian Doppler Lab MEVSS

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Letter of Nomination

Dear Don,
Dear Members of the Award Selection Committee,

We would like to nominate the following paper for an SPLC Most Influential Paper Award:

Christian Kästner, Sven Apel, and Martin Kuhlemann. 2008. Granularity in software product lines. In Proceedings of the 30th International Conference on Software Engineering (ICSE '08). ACM, New York, NY, USA, pp. 311-320.

We strongly support this paper because it merits the award for multiple reasons. In our view, this paper provides a sound but at the same time practical analysis of the importance of granularity on feature implementation in software product line engineering. In their study the authors clearly demonstrate that fine-grained extensions are essential in configurable systems, e.g., when identifying extracting features from legacy applications. The paper carefully analyzes the deficiencies of compositional and annotative approaches for realizing such fine-grained extensions (e.g., annotations obfuscating the code). The authors further present tool support (CIDE) for decomposing legacy applications into features (of fine granularity if needed). CIDE follows an annotative approach, but at the same time avoids the 'pollution' of source code with annotations. Another benefit of CIDE is that features are mapped to structural elements of the source code (subtrees of the AST). Furthermore, two case studies demonstrate the decomposition into features with CIDE (including the comprehensive Berkeley DB case study).

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Overall we think that the paper paved the way for a lot of research on feature-oriented software development, a programming paradigm where the concept of features is used in all phases of the software life cycle. The work is also an important motivation and foundation for work on variation control systems that aim to integrate both revisions and variants in software product lines by managing features, variants, and variation points in an integrated and uniform manner.

Although citations alone are not sufficient to merit the award it is impressive to see that the paper has already received 504 citations (according to Google Scholar) as of March 22, 2019.

We support the nomination of this paper in the strongest possible manner, as it gave rise to significant advances in software product lines and configurable systems.

Individual email confirmation on this joint nomination have been provided from each of us below.

Claus Brabrand, *Associate Professor, IT University of Copenhagen*
Paul Grünbacher, *Associate Professor, Johannes Kepler University Linz*
Roberto Erick Lopez Herrejon, *Professor, Université du Québec*
Julia Rubin, Assistant Professor, *University of British Columbia*

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