

We the undersigned would like to nominate:

“On the Notion of Variability in Software Product Lines” by Mikael Svahnberg, Jilles van Gorp and Jan Bosch which was presented at the IEEE/IFIP Working Conference on Software Architecture in 2001.

We nominate this paper because we think it has pioneered the field for the following reasons.

This paper was one of the first (if not the first) to define variability at all possible levels of software systems, from business and technological considerations to variability issues in source code and in the running system. It therefore paved the way for a taxonomy of variability realisation mechanisms (published by the same authors four years later). Also, it contributed to shape the research on SPLs and on configurable systems: Many researchers have used this paper and adopted its definition of variability (an otherwise often overloaded term). Furthermore, many researchers have used the levels of variability described in the paper as a theoretical framework to position research contributions with regards to the aspects of variability addressed.

Second, the paper followed a systematic approach based on architectural patterns (that is detailed in the associated technical report available on the MIP website) and described recurring patterns of variability that are often related to architectural (i.e., system-wide rather than local) aspects. A prominent contribution this paper makes is the discussion of variability binding times, which did help provide better feature languages (e.g. Feature diagrams: A survey and a formal semantics, Schobbens et al. RE'06, RE'16 MIP Award) and product configuration and derivation approaches (e.g., Czarnecki et al. Staged configuration using feature models, SPLC'04).

Last but not least, according to Google Scholar, this paper has 675 citations (information retrieved on February 22nd, 2017) and has been cited by one of the reference textbooks on Software product Lines (Software Product Line Engineering by Klaus Pohl, Günter Buckle and Frank van der Linden) and contributions where this paper is cited include (of course) SPLC but also other top venues outside the product-line domain, such as venues in the general field of software engineering (e.g. TSE, ICSE, ASE) and more specialized venues (e.g. RE, WICSA). These contributions cover a wide range of subjects from formal reasoning at the feature models to feature-oriented composition mechanisms at the code level to architecture viewpoints and patterns.

For these reasons, we support in the strongest manner the nomination of this paper for the SPLC MIP Award.

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Mathieu Acher (University of Rennes I, France)  
Matthias Galster (University of Canterbury, New Zealand)  
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