

Second International Workshop on Variability and Evolution of Software-Intensive Systems (VariVolution 2019)

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ABSTRACT

Most of today's software systems evolve continuously and need to exist in various variants to address different requirements. However, changes resulting from evolution in time (i.e., revisions) and changes resulting from evolution in space (i.e., variants) are managed completely differently. In particular, no traditional technology for version management provides convenient means to effectively and efficiently support unified revision and variant management. Researchers from various communities have proposed new concepts and techniques to tackle this problem. Especially the communities of software configuration management, software product lines, and software versioning are working on such a unified technology. For example, variation control systems have been proposed to systematically manage revisions and variants based on a unified perspective of evolution in time and space. *VariVolution* (the 2nd International Workshop on Variability and Evolution of Software-Intensive Systems) aims to gather researchers and practitioners that are working on or interested in software evolution and variability. The workshop offers an opportunity to exchange ideas, report real-world cases and problems, and initiate new research directions and collaborations.

CCS CONCEPTS

• **Software and its engineering** → *Software product lines; Software configuration management and version control systems.*

KEYWORDS

Evolution, variability, version control, configuration management

ACM Reference Format:

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WORKSHOP SUMMARY

A software product line enables an organization to systematically manage a set of similar software systems based on a reusable platform. However, adopting and maintaining a software product line is a challenging task. An organization needs to actively evolve its software product line to integrate new (extending the variant space) or changing (evolving to a new revision) requirements. Consequently, the two dimensions of evolution in time and space will affect each other, which is why they must be considered mutually. This combination of variability and versioning yields an additional level of complexity. The software-product-line community acknowledges that a unified solution for managing variants and revisions simultaneously is needed to support practitioners. For example, Dagstuhl seminar 19191¹ has been conducted as a collaborative event with researchers from various communities to initiate research on such a solution.

This year's VariVolution workshop follows the topics of the previous edition [1] and conveys concepts of software evolution to the variability management community. The objectives of the workshop are:

- Discuss recent research that addresses the challenges of variability and evolution.
- Identify open research topics.
- Present concepts and technical solutions towards unified variant and revision management.
- Demonstrate tools addressing the aforementioned topics.
- Investigate real-world problems caused by the combination of variability and evolution.
- Present industrial challenges and lessons learned.

VariVolution aims to increase collaboration in the domain of variability evolution and to raise awareness of current problems in this domain. The second edition of VariVolution received six submissions, out of which the program committee accepted four full papers and one short paper to be included in the workshop.

Workshop website: sites.google.com/view/varivolution2019

REFERENCES

- [1] Lukas Linsbauer, Somayeh Malakuti, Andrey Sadovykh, and Felix Schwägerl. 2018. 1st Intl. Workshop on Variability and Evolution of Software-Intensive Systems (VariVolution). In *International Systems and Software Product Line Conference (SPLC)*. ACM, 294–294.

¹<https://www.dagstuhl.de/en/program/calendar/semhp/?semnr=19191>