

RESEARCH OUTPUTS / RÉSULTATS DE RECHERCHE

Software Testing Research

Perrouin, Gilles

Publication date:
2018

Document Version
Publisher's PDF, also known as Version of record

[Link to publication](#)

Citation for published version (HARVARD):
Perrouin, G 2018, 'Software Testing Research', NaDI - l'Intelligence Artificielle : enjeux et défis., Namur, Belgium, 23/10/18 - 23/10/18.

General rights

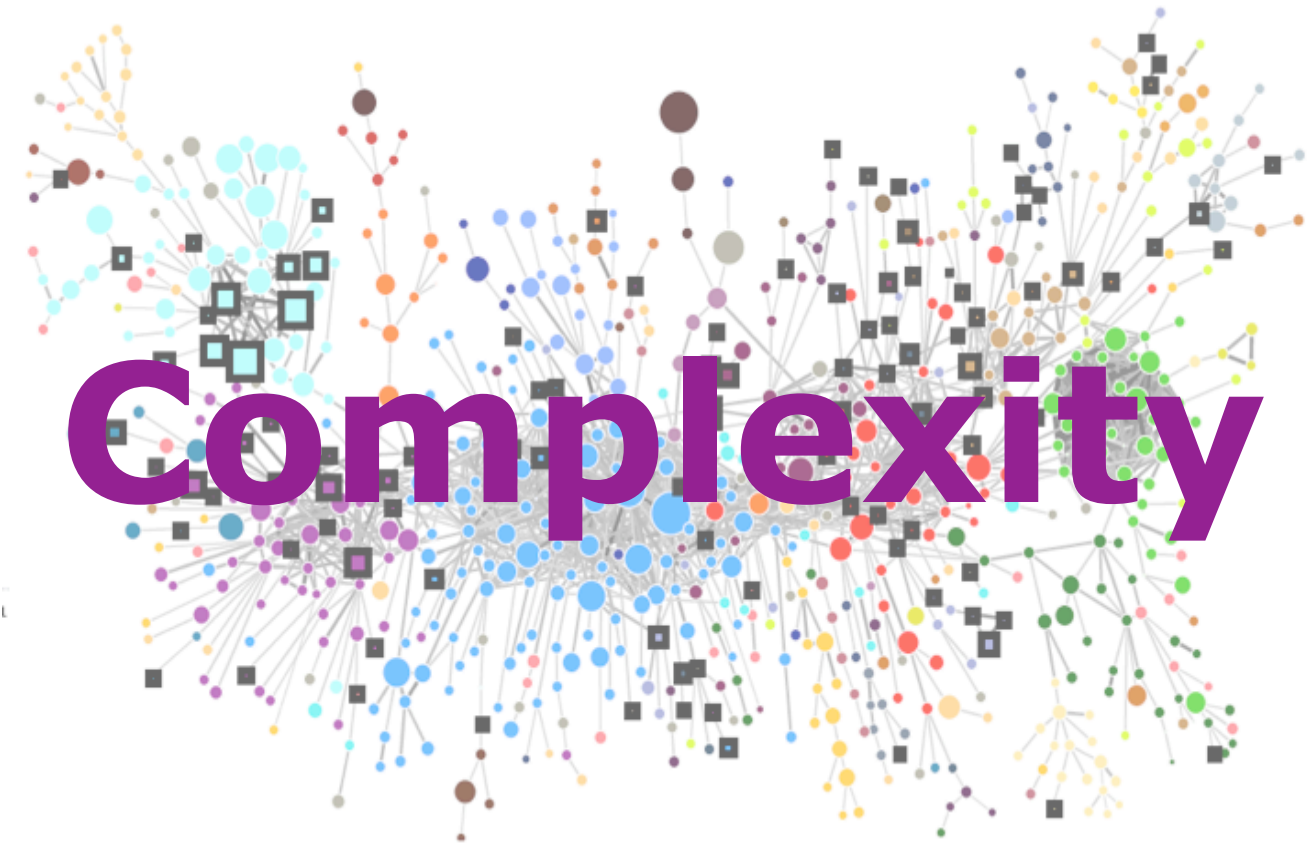
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

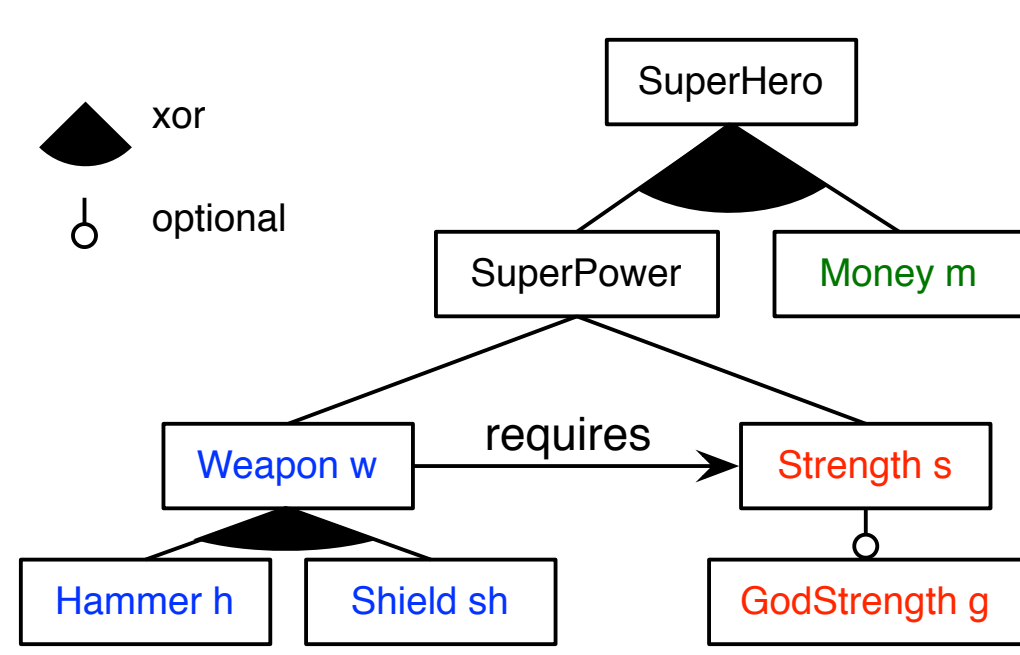
Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

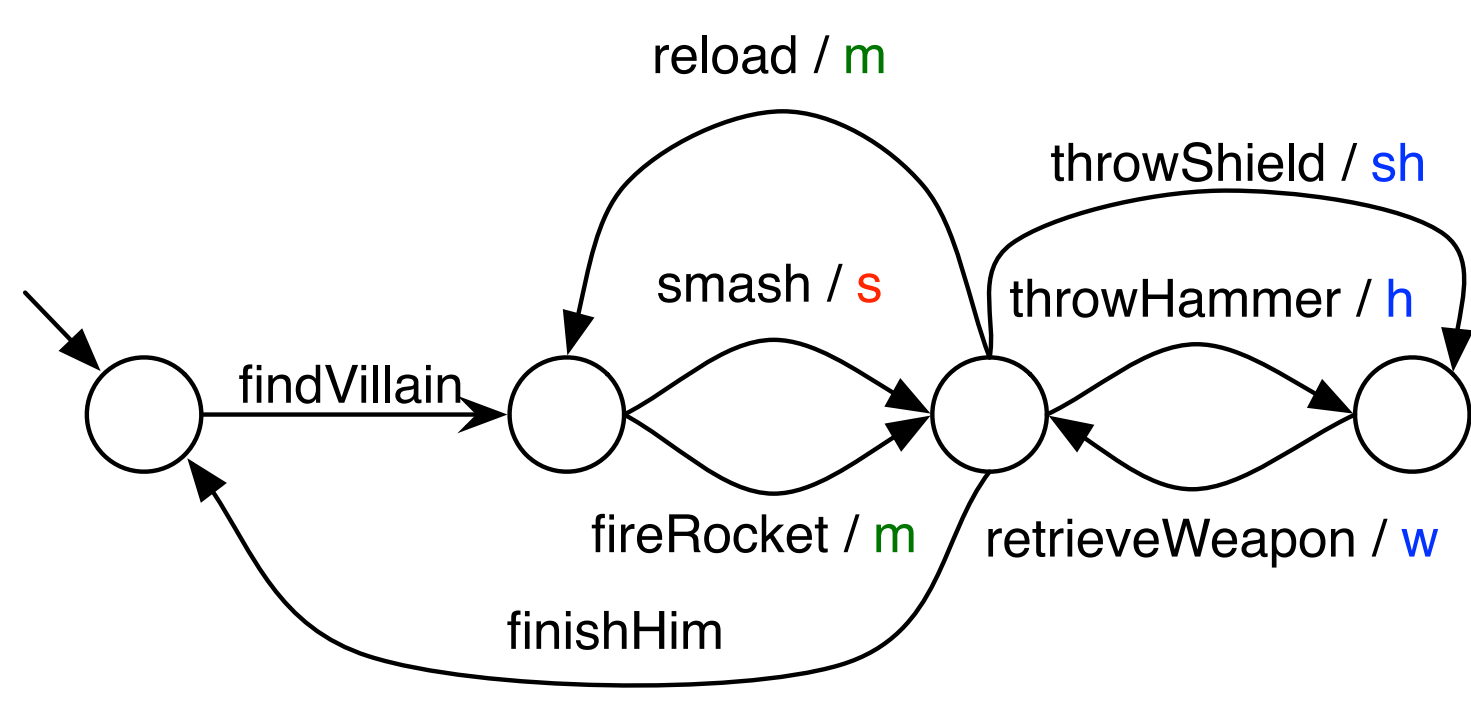
Software Testing Challenges



Modelling

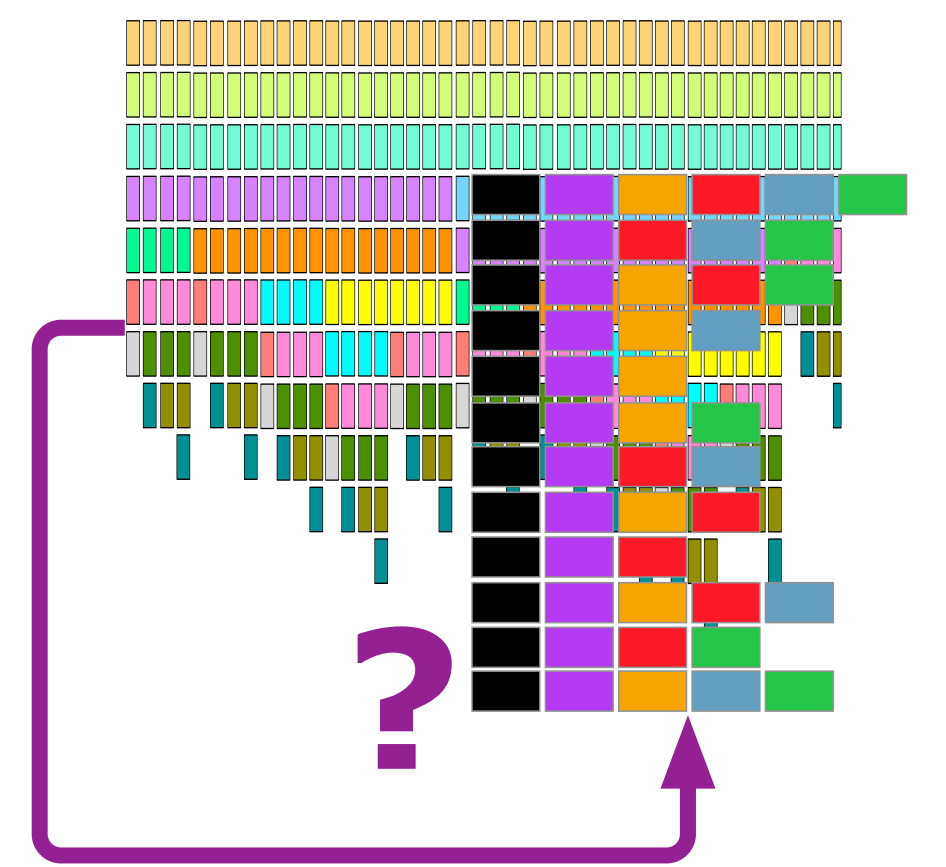
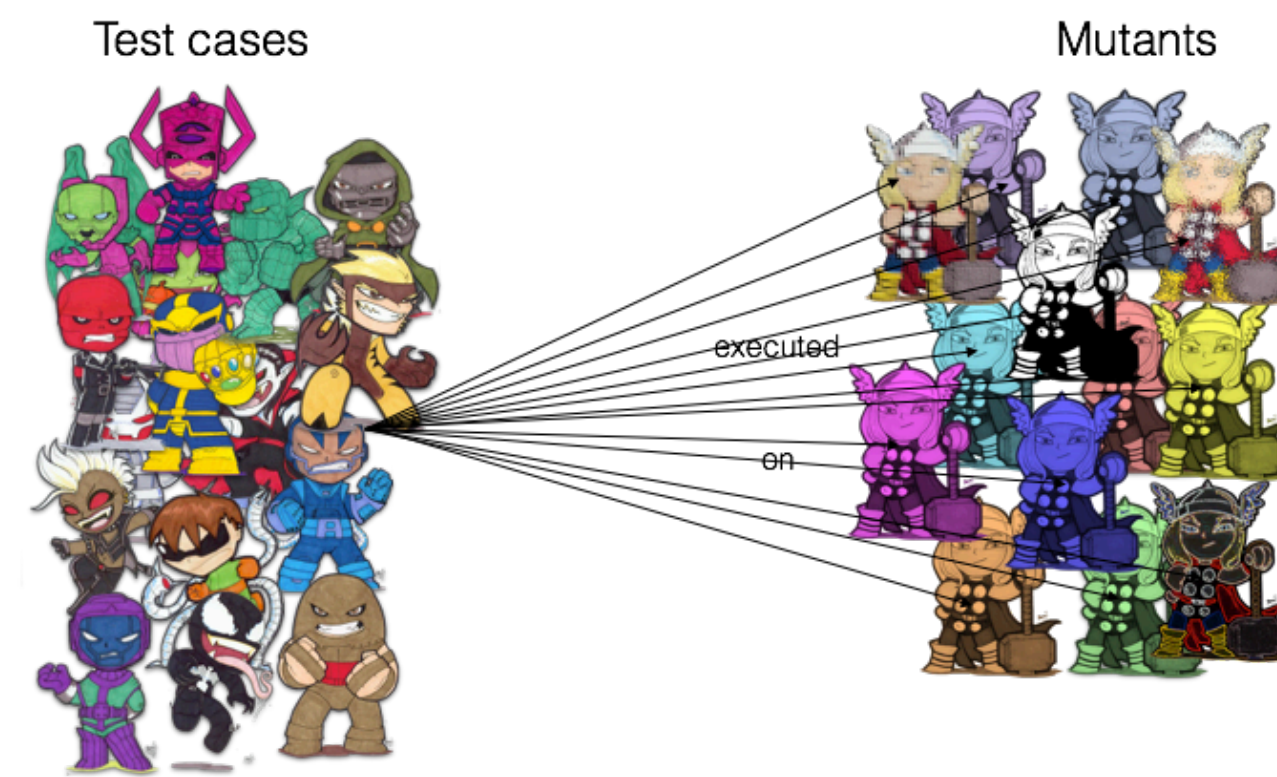
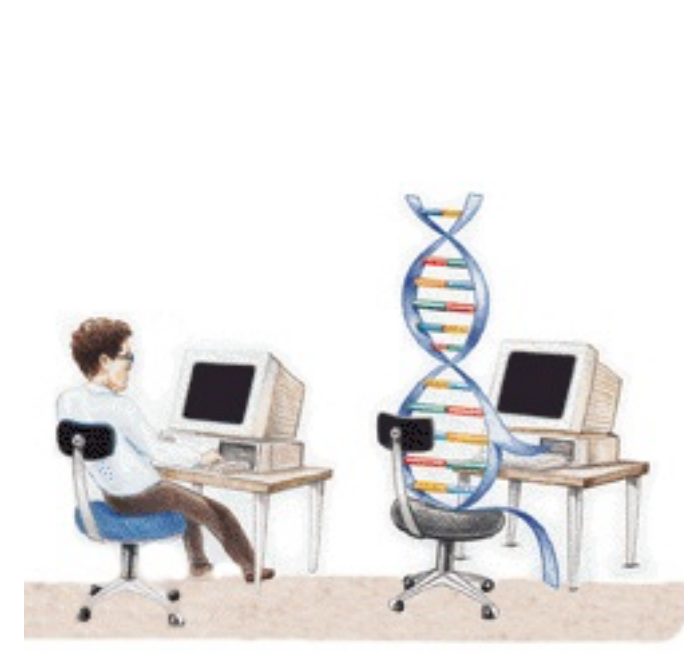


Feature Diagram



Featured Transition System

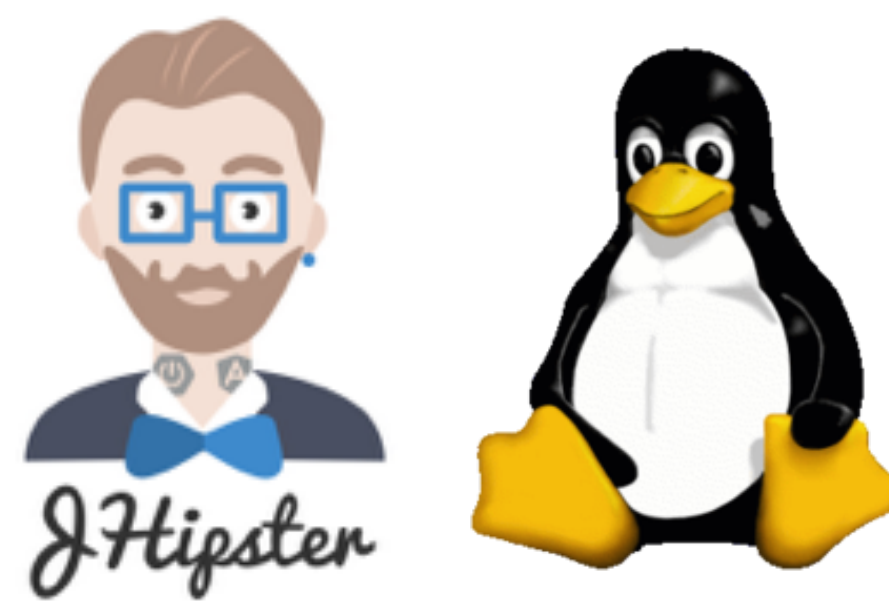
Test Generation and Analysis



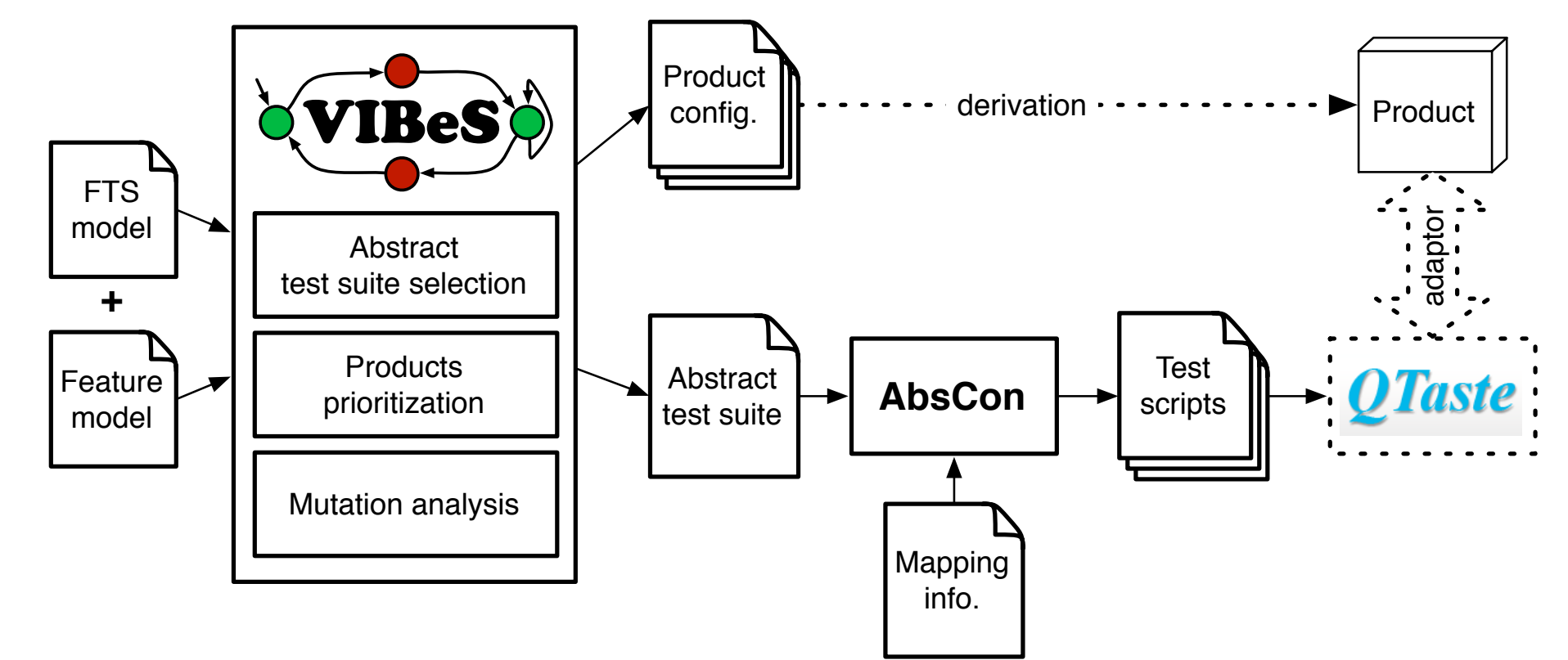
Evolutionary Testing

Mutation Testing

Configuration Sampling



Open Source Software
Research Cases



Model-based Testing Framework

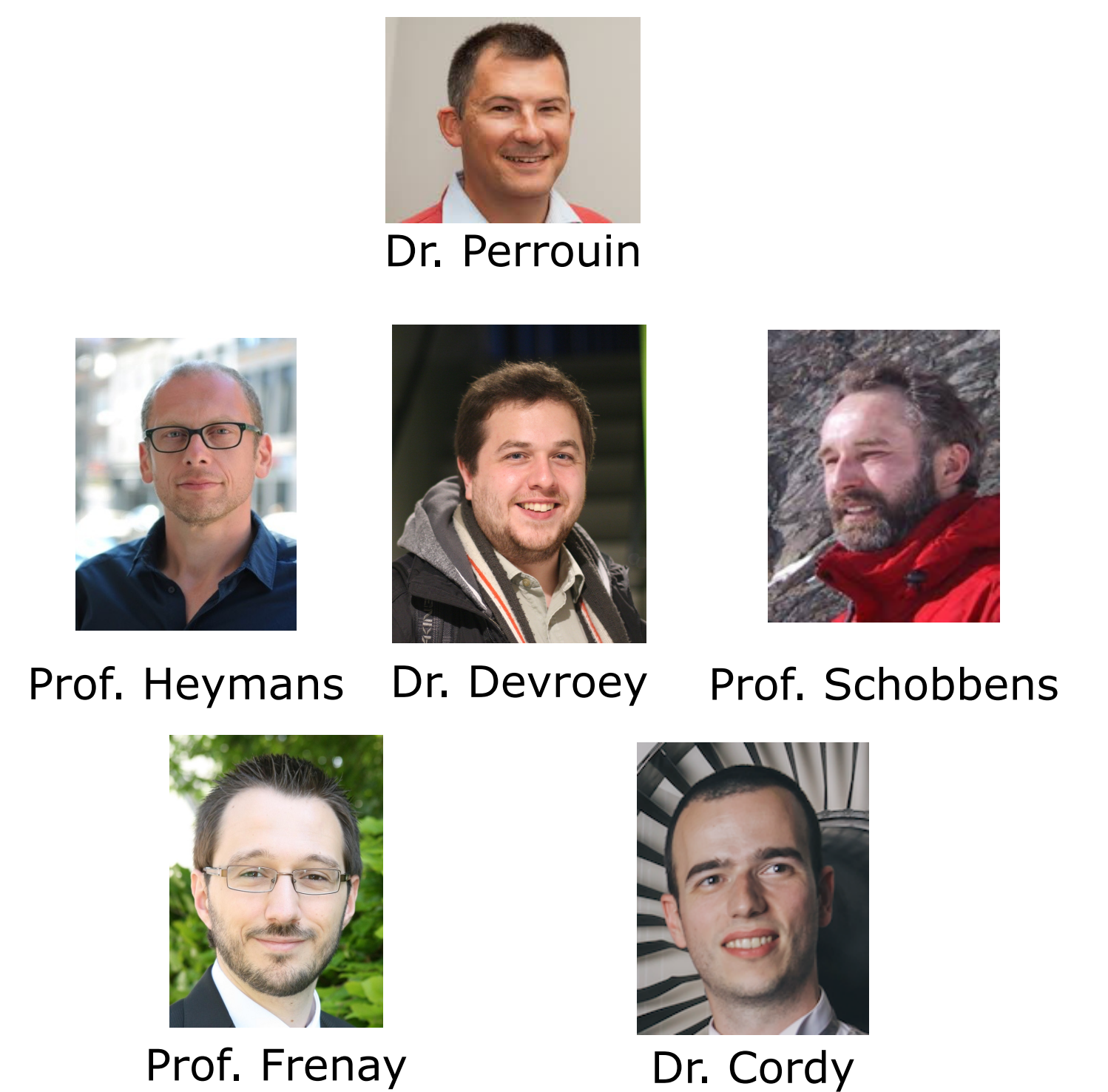
Partners



Projects



Team



Selected Contributions

Xavier Devroey, Gilles Perrouin, Mike Papadakis, Axel Legay, Pierre-Yves Schobbens and Patrick Heymans, **Model-based mutant equivalence detection using automata language equivalence and simulations**, Journal of Systems and Software, Volume 141, pages 1-15, Elsevier, July 2018.

Xavier Devroey, Gilles Perrouin, Maxime Cordy, Hamza Samih, Axel Legay, Pierre-Yves Schobbens and Patrick Heymans, **Statistical prioritization for software product line testing: an experience report**, Software & Systems Modeling, Volume 16, Issue 1, pages 153-171, Springer, January 2017.

Xavier Devroey, Gilles Perrouin, Mike Papadakis, Axel Legay, Pierre-Yves Schobbens and Patrick Heymans, **Featured Model-based Mutation Analysis**, International Conference on Software Engineering (ICSE), pages 655-666, Austin, TX, USA, IEEE, May 2016.

Christopher Henard, Mike Papadakis, Gilles Perrouin, Jacques Klein, Patrick Heymans and Yves Le Traon, **Bypassing the combinatorial explosion: Using similarity to generate and prioritize t-wise test configurations for software product lines**, Transactions on Software Engineering, Volume 40, Issue 7, pages 650-670, IEEE, July 2014.