Introduction to Agile Software Development: Lean, Distributed, and Scalable

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Agile software development processes have been influenced by best practices in Japanese industry, particularly by lean product development principles implemented at companies like Honda and Toyota, and knowledge management strategies developed by Takeuchi and Nonaka and Peter Senge. This minitrack will focus on advancing the state of the art or presenting innovative ideas related to agile methods, individual practices and tools. Accepted papers will potentially enrich the body of knowledge and influence the framework of thought in the field by investigating Agile methods in a rigorous fashion.

The track is open to research papers on multiple aspects of agile methods, particularly those that bring best practices in knowledge management and lean development to scalable, distributed, and outsourced Scrum, eXtreme Programming (XP), and other agile practices. Papers of interest include these topics:

- Research on metrics used to measure productivity, quality, predictability, and value delivery of agile teams.
- Research on hyperproductive teams and what makes them different from typical product development teams.
- Research on existing or new methodologies and approaches: informal modeling techniques and practices, adapting/trimming existing methods, and new product/project planning techniques.
- Research on existing or new techniques or practices: pairing, war-rooms, test-first design, paper-based prototyping, early acceptance test driven development, exploratory testing, refactoring, or others.
- Research on special topics or tools: configuration and resource management, testing, project steering, user involvement, design for agility, virtual teams or others.
- Research on integrating ideas from other fields, e.g. interaction design, requirements engineering, cognitive science, organizational psychology, usability testing, software security, into agile processes.
- Research studies of development teams using ethnographic or social research techniques.
- Research on agile software engineering economics.
- Research on agile compliance and cost benefits within CMMI, ISO 9000, PRINCE 2 and FDA certified development projects.