Welcome to the (pre-workshop) proceedings of the 4th SEMAT Workshop on General Theory of Software Engineering (GTSE 2015), co-located with the 37th International Conference on Software Engineering in Florence, Italy, on May 18th, 2015.

General theories explain the fundamental phenomena that constitute a research domain. They apply across a domain and often integrate many theories and concepts into a single cohesive view. While general theories are extremely important for education and research coordination, and common in many disciplines (e.g. sociology, criminology, electrical engineering, biology, physics), software engineering lacks a well-accepted general theory. The General Theory of Software Engineering workshop seeks to rectify this situation by promoting theory development in software engineering.

This year, the GTSE workshop received 18 submissions, each of which received a minimum of three reviews. To maximize time for fruitful discussion, we limited acceptance to 8 papers. Our process was simple: seven papers had clearly positive reviews and were accepted; of the three papers with borderline reviews we accepted the one that we believed would most stimulate discussion.

We also invited a talk from Professor Barry Boehm. Prof. Boehm will provide a keynote entitled “Developing and Evolving a Value-Based Theory of Software Engineering”, describing a theory he and his collaborators have been working on for over a decade.

We would like to thank all those who submitted papers to the workshop, the program committee for their reviewing and for encouraging others to participate, and SEMAT for promoting the event.

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GTSE 2015 Co-chairs