

Towards Dynamic Updates in Service Composition

Prof. Mario Bravetti
University of Bologna, Italy / INRIA, France

Facultad de Informática
Sala de Grados – 1 de julio de 2016 - 18:00
Entrada libre hasta completar el aforo

Resumen:

We present adaptable processes as a way of overcoming the limitations that process calculi have for describing patterns of dynamic process evolution. Such patterns rely on direct ways of controlling the behavior and location of running processes, and so they are at the heart of the adaptation capabilities present in many modern concurrent systems. Adaptable processes have named scopes and are sensible to actions of dynamic update at runtime; this allows us to express dynamic and static topologies of adaptable processes as well as different evolvability patterns for concurrent processes. We then consider distributed adaptability, where a process can update part of a protocol by performing dynamic distributed updates over a set of protocol participants. Dynamic updates in this context are presented as an extension of our work on choreographies and behavioural contracts in multiparty interactions. We show how update mechanisms considered for adaptable processes can be used to extend the theory of choreography and orchestration/contracts, allowing them to be modified at run-time by internal (self-adaptation) or external intervention.

Sobre Mario Bravetti:

Mario Bravetti is an Associate Professor (with national Full Professor habilitation) at the Computer Science and Engineering Department of University of Bologna. He is also member of the FOCUS (FOundations of Component-based Ubiquitous Systems) team which is part of the INRIA Sophia Antipolis - Méditerranée research center. He is co-founder and member of the steering committee of the international workshop on Web Services and Formal Methods (WS-FM). He has been organizer/program committee chair of several international conferences and events, such as the 11th International Conference on Software Engineering and Formal Methods (SEFM 2013), the 20th International conference on Concurrency Theory (CONCUR 2009), and the meeting on the 25th anniversary of Process Algebra. His current research interests include behavioural contracts for service composition.