

**Abstract:** Distributed systems have always been the scene of various software and hardware failures. These failures can have diverse sources such as the crash of machines, bugs, misconfigurations, as well as malicious attacks and users that deliberately tamper with their software to gain some benefit. These failures are especially difficult to deal with when the distributed system spans over multiple administrative domains (also referred to as MAD distributed systems). Examples of such systems include peer-to-peer systems, computer grids, network services (e.g., DNS), federated information systems and inter-domain routing. Accountability, which refers to the ability to detect and expose node faults, is a promising paradigm to deal with these types of failures. During this tutorial, I will survey existing solutions that have been proposed in the literature for enforcing accountability in distributed systems (e.g., software solutions, hardware solutions) and will discuss open challenges in this field including the building of accountable and privacy preserving systems.



**Bio:** Sonia Ben Mokhtar is a CNRS researcher in the Distributed, Information Retrieval and Mobility (DRIM) group of the Laboratoire d'InfoRmatique en Image et Systèmes d'information (LIRIS) located in Lyon, since Octobre 2009. Before joining the LIRIS lab, Sonia Ben Mokhtar obtained her PhD Université Pierre et Marie Curie (Paris 6) in 2007 working in the INRIA Rocquencourt ARLES research group lead by Valérie Issarny. After that, Sonia was a research associate at University College London (GB) in the Software Systems Engineering Group for two years where she was working with Licia Capra. Since the beginning of her career Sonia Ben Mokhtar has co-authored about 40 international publications, she co-supervised 9 PhD students and is vice chair of the French ACM SIGOPS chapter since 2012.