Invited talk #1:

Title: Composable Systems: are we there yet?

Presenter: Christian Pinto, IBM

Abstract:

Composable Systems are a new paradigm for building computer systems that aims at improving utilization of hardware, reducing energy consumption and enables the infrastructure to dynamically adapt to different incoming workloads, rather than the way around. However, this technology is not yet the state of the art for building data centers and it requires further efforts on the hardware, software and standardization initiatives. In particular operating system, boot loaders and management software are a big area of exploration in this moment. In this talk I will go through the landscape of composable disaggregated infrastructure, describing existing commercial solutions and ongoing research to help the audience understand where the overall technology stands and what level of readiness we have reached so far.

Brief CV:

Christian is a Staff Research Scientist in the "Next Generation Systems and Cloud" team at IBM Research Europe (Ireland Lab). Christian's research activities and interests are focused on novel cloud computing paradigms, and applications of distributed systems and cloud computing concepts to the field of Artificial Intelligence, virtualization and computer architecture. In the recent years, Christian is been working in the area of disaggregated and composable systems, including participating to the development of a memory disaggregation prototype and conducting research on application of this technology to cloud infrastructure and its integration in the Linux memory management system. Christian holds a Ph.D. in Computers and Electronic Engineering from University of Bologna, and a Master degree in Computer Engineering from the same university.