

Talk: Scheduling Algorithms in Large Scale Distributed Systems

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Abstract: Many applications that run on distributed systems and generate Big Data, like social networking and social influence programs, Cloud applications, public web sites, scientific experiments and simulations, data warehouse, monitoring platforms, and e-government services. Data grow rapidly, since applications produce continuously increasing volumes of unstructured and structured data. The impact on data processing, transfer and storage is the need to re-evaluate the approaches and solutions to better answer the user needs. In this context, scheduling models and algorithms have an important role. A large variety of solutions for specific applications and platforms exist so a thorough and systematic analysis of existing solutions for scheduling models, methods and algorithms used in Big Data processing and storage environments has a high importance. This talk presents an overview of existing solutions (algorithms, methods, models, etc.) and offer the possibility to define new approaches and collaborations. It highlights, from a research perspective, the performance and limitations of existing solutions and offers the scientists from academia an overview of current situation in the area of scheduling and resource management in large scale distributed systems, especially as support for Big Data processing. More specific, I am looking for a specific collaboration that can define an equilibrium problem that is equivalent with an optimization problem in scheduling (been packing problem).

Bio: Prof. Dr. Eng. Florin Pop (with habilitation) received his PhD in Computer Science at the University Politehnica of Bucharest in 2008 with “Magna cum laude” distinction. His main research interests are in the field of large scale distributed systems concerning scheduling and resource management (decentralized techniques, re-scheduling), adaptive and autonomous methods, multi-criteria optimization methods, Grid middleware tools and applications development (satellite image processing an environmental data analysis), prediction methods, self-organizing systems, data retrieval and ranking techniques, contextualized services in distributes systems, evaluation using modeling and simulation (MTS2). Florin Pop was awarded with two Prizes for Excellence from IBM and Oracle, three Best Paper Awards (in 2013, 2012, and 2010), and one IBM Faculty Award. He is involved in many national projects and international research projects (6 as project leader). He is active reviewer for several Journals (TPDS, FGCS, ASOC, Soft Computing, Information Sciences, etc.) and he has acted as Guest Editor for several special issues in FGCS and Soft Computing. He is IEEE Senior Member.