

## Modeling time-varying multilayer networks (and beyond?)

Dia 24/11/2015 das 10:00 às 11:00 horas Sala H- 301

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*This talk will present our recent work on the modelling of time-varying multilayer networks. The proposed model has a strong relationship with traditional directed graphs, thus leading to a useful theoretical framework for the analysis of complex networked systems. In the specific case of time-varying graphs, we show that this theoretical framework is a unifying model able to represent several previous (classes of) models for dynamic networks found in the recent literature, which in general are unable to represent each other. Further, we also explore the basic model to introduce and investigate the notion of time centrality in dynamic complex networks. Finally, we also present our on-going work in adopting the proposed model to study real-world time-varying and/or multilayer networks.*

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### Dr. Artur Ziviani

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Artur Ziviani is a Senior Technologist at the National Laboratory for Scientific Computing (LNCC), a research unit of the Brazilian Ministry of Science, Technology, and Innovation (MCTI) located in Petrópolis, Brazil. In 2003, he received a Ph.D. in Computer Science at the LIP6 laboratory of the Université Pierre et Marie Curie (Paris 6) - Sorbonne Universités, Paris, France, where he has also been a lecturer during the 2003-2004 academic year. He received a B.Sc. degree in Electronics Engineering in 1998 and a M.Sc. degree in Electrical Engineering (emphasis in Computer Networking) in 1999, both from the Federal University of Rio de Janeiro (UFRJ), Brazil. From September 2008 to January 2009, he was a visiting researcher at INRIA in France. Currently, he serves on the Editorial Board of the following international journals: IEEE Communications Surveys & Tutorials, Computer Networks (Elsevier), and International Journal of E-Health and Medical Communications (IJEHMC). His current research interests include network characterization, modeling, and analysis; network science; and interdisciplinary research with a networking approach. He is a Member of SBC (the Brazilian Computer Society), an Affiliated Member of the Brazilian Academy of Sciences, and a Senior Member of both IEEE and ACM. Ref: <http://www.lncc.br/~ziviani>