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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