

SOE 15: Dynamics in Real-World Multiplex Networks (Invited Talk Vito Latora) (joint session DY/SOE)

Time: Wednesday 15:00–15:30

Location: MA 001

Invited Talk

SOE 15.1 Wed 15:00 MA 001

Network structure and dynamics: when and how multiplex really matters? — ●VITO LATORA — School of Mathematical Sciences, Queen Mary University of London, London E1 4NS, United Kingdom

After almost ten years of research on characterising the properties of

real-world multiplex networks, describing mathematically their structure, and modelling different types of dynamical process occurring over them, it is now time to draw the first conclusions and to try to answer a fundamental question: Does multiplex really matter? Focusing here both on the structure and on dynamics of multiplex networks, we discuss some cases where multiplexity gives rise to the emergence of novel behaviors, otherwise unobserved in single-layer networks.