DESY
Particle and Astroparticle Physics Colloquium

Spreading dynamics: from neural information flow to COVID-19.

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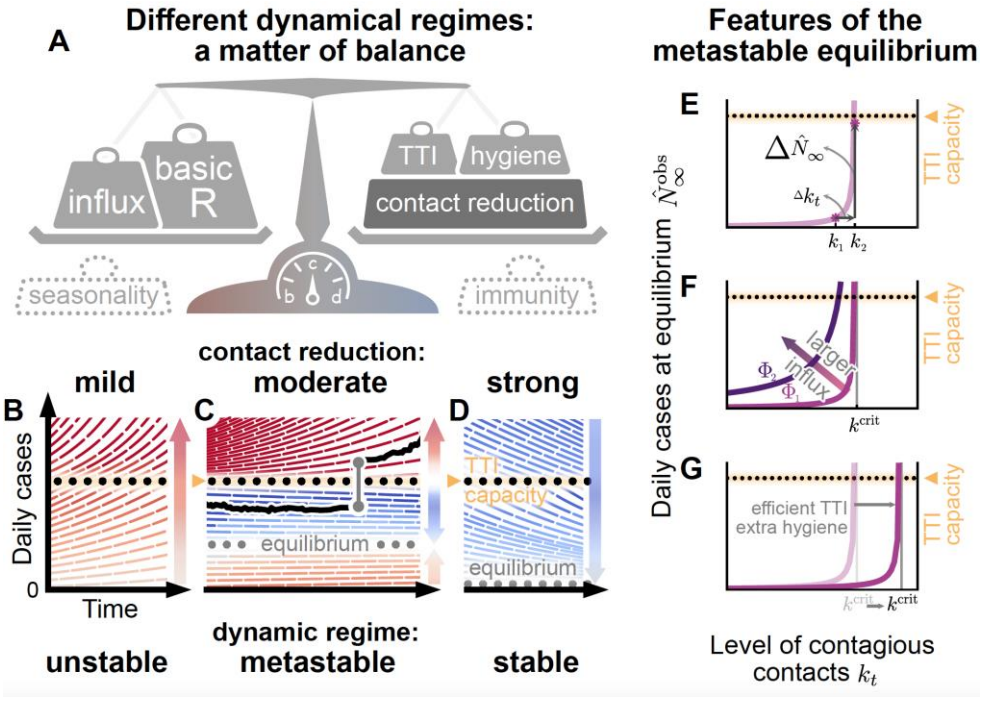
Tuesday, 9 November, 2021

Webcast 16:00 h



How can we infer the spreading of activity and information in neural networks? And how can we infer the spread of SARS-CoV-2 in a social network – even if only a fraction of all infections is reported? We recapitulate the basic principles of spreading dynamics, and the role of critical phenomena. We then investigate their role in shaping collective computation in neural networks. Using the same basis, we investigate COVID-19 spread and mitigation strategies. In particular, we demonstrate a tipping point in the test-trace-isolate strategies, which incurs (transient) supra-exponential growth. Avoiding that tipping-point can greatly facilitate the control of COVID-19.

This is a VIDEO COLLOQUIUM!

Connection details at https://desy.zoom.us/j/99616528733

Meeting ID: 996 1652 87333
Meeting Password: 733220

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