

Physical and uncertainty modeling of interdependent civil infrastructure systems for the purpose of developing decision support systems and resilience assessment

Dienstag, 6. Dezember 2016

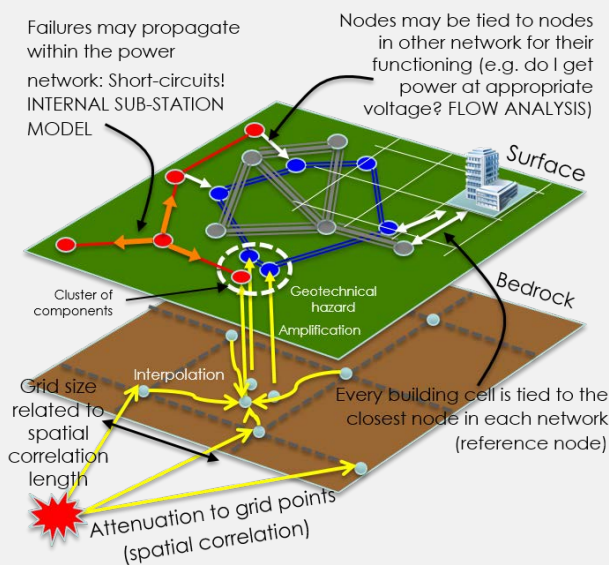
17:00 Uhr

Auditorium HIL E 3 (Lehrgebäude Bauwesen)
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Modeling the performance of infrastructure systems under normal operating conditions is usually done for design purposes. Simplifications are common and supported by a long tradition of practice in each application domain. As an example, one such simplification is that each system is usually modeled independently of other systems. Resilience being a global property, its assessment requires a more refined modeling approach. Defective behaviour of systems built over decades to different and evolving norms and their interaction need to be accounted for explicitly. Adding further complexity is the need to deal with the many uncertainties in the problem and the evolving state of information in the aftermath of a disturbance. The talk will focus on aspects of physical network flow modeling under non ordinary conditions and a way of using simulation results to build a Bayesian-network to form the basis of decision-support system.

Anschliessend an den Vortrag ist ein gemeinsames Nachtessen mit dem Referenten im Restaurant Die Waid, Waidbadstrasse 45, 8037 Zürich vorgesehen.