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25. September 2008

Einladung zum Vortrag

von

Professor Dr. Martin Haenggi
UNIVERSITY OF NOTRE DAME (USA)

The Geometry of Ad Hoc Networks and its Impact on Performance

The node distribution in ad hoc and sensor networks is typically modeled as a stochastic point process. Due to its analytical tractability, the homogeneous Poisson point process (PPP) is widely popular. We give an overview of interference (cumulated received power from undesired transmitters) and outage (probability of packet loss) results for the PPP, and we present recent extensions of these to more general point processes, first to Poisson cluster processes and then to general motion-invariant point processes. Next we show how channel fading can be incorporated in the PPP, which leads to a geometric interpretation of fading that permits a convenient characterization of the single-hop connectivity and transport capacity.

Termin: Dienstag, 28. Oktober 2008 , 17:15 Uhr

Ort: Universität Ulm, Helmholtzstr. 18, Raum He 220

Interessenten sind herzlich eingeladen.

Der Vortrag findet im Rahmen des Mathematischen Kolloquiums statt.

gez. V. Schmidt