

**SOE 2: Future Visions of Socio- and Econophysics**

Time: Monday 9:30–10:00

Location: MA 001

SOE 2.1 Mon 9:30 MA 001

**A Planetary Nervous System to Measure and Understand Our Society** — ●DIRK HELBING — ETH Zurich, Clausiusstrasse 50, CH-8092 Zurich

The Planetary Nervous System is a large-scale distributed research platform that will provide real-time social mining services as a public good. Existing Big Data systems threaten social cohesion as they are designed to be closed, proprietary, privacy-intrusive and discriminatory. In contrast, the Planetary Nervous System is an open, privacy-preserving and participatory platform designed to be collectively built by citizens and for citizens. The Planetary Nervous System is enabled by Internet of Things technologies and aims at seamlessly interconnect-

ing a large number of different pervasive devices, e.g. mobile phones, smart sensors, etc. For this purpose, several universal state-of-the-art protocols and communication means are introduced. A novel social mining paradigm shift is enabled: Users are provided with freedom and incentives to share, collect and, at the same time, protect data of their digital environment in real-time. In this way, social mining turns into a knowledge extraction service for public good. The social mining services of the Planetary Nervous System can be publicly used to build novel innovative applications. Whether you would like to detect an earthquake, perform a secure evacuation or discover the hot spots of a highly frequented city, the Planetary Nervous system makes this possible by collectively mining social activities of participatory citizens.