

MEGHÍVÓ

**Az MTA Atommagkutató Intézet előadótermében
(Debrecen, Poroszlay út 6., XII. ép. III. em.)**

2017. február 2-án, 11:00-kor

From the deep Earth to human habitat

Előadó: **Sierd Cloetingh**
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The structure and processes of the deep Earth may sound remote from everyday concerns, but both have strong relevance for humanity's basic needs, such as the supply of water and resources, protection against natural hazards and control of the environmental degradation of the Earth.

Over the past decades, Earth sciences have rapidly changed from largely descriptive to process-oriented disciplines which aim at quantitative models for the reconstruction and forecasting of the complex processes in the solid Earth. This includes predictions, in the sense of forecasting the future behaviour of geologic systems, but also the prediction of geologic patterns which exist now in the subsurface as frozen evidence of the past.

If we are to understand the present state of the Earth System, to predict its future and to engineer our sustainable use of it, this spectrum of processes (operating concurrently but on different time scales) needs to be better understood. The challenge to Earth science is to describe the state of the system, to monitor its changes, to forecast its evolution and, in collaboration with others, to evaluate different models for its sustainable use by human beings. Research will need to focus on the interplay between active tectonics, topographic evolution, and related sea level changes and drainage pattern (river) development. This includes developing an integrated strategy for observation and analysis, emphasising large scale changes in vulnerable parts of the globe.



A szeminárium előtt 10:30-tól tea.

Gácsi Zoltán