## EInLADUNG ZUM KoLLOQUIUM

## Olivier Sartenaer

(Köln)

## Emergence, Reductionism and Determinism

The concept of emergence has relentlessly gained in credibility and popularity over the last decades, to the effect that it is today an integral part of the scientific discourse, from fundamental physics to biology or the cognitive sciences. The notion, which is often (unfortunately) associated with the traditional slogan "the whole is more than the sum of its parts", has a strong seductive power, as it would allow for resisting the uncompromising reductionism that seems to inhere in many scientific programs, as well as being the basis for a non-deterministic worldview, where some room for genuine novelty or unpredictability might be preserved. The proposed talk is meant as an attempt to conceptualize and criticize this purported relationship between emergence, reductionism and determinism.

Dr. Olivier Sartenaer graduated in both physics and philosophy. After defending his Ph.D dissertation in philosophy of science at the Catholic University of Louvain in 2013, he pursued his research on emergence as a postdoctoral researcher at Columbia University (Fulbright, 2013-2014), the Catholic University of Louvain (FNRS, 2014-2017) and, currently, the University of Cologne (Alexander von Humboldt Foundation, 2017-2019). He was also a visiting fellow at the University of Cambridge (2011), Paris 1 Panthéon-Sorbonne University (2013) and the University of Virginia (2016).

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