

Universität Innsbruck - Institut für Christliche Philosophie

## Gastvortrag

Organisation und Kontakt: Edmund Runggaldier

## Hans Briegel (Innsbruck): On agents, creativity, and freedom under the laws of nature

Mittwoch, 10. April 2013, 18.00 s.t. Seminarraum VI (Karl-Rahner-Platz 3)

I will discuss the possibility of freedom in agents that are, with no exception and at all scales of their body, subject to physical law. I will relate the discussion to a model of an artificial agent that exhibits a primitive notion of creativity and freedom, which is part of a recently introduced scheme of information processing called projective simulation. This provides an explicit proposal on how we can reconcile our understanding of universal physical law with the idea that higher biological entities can acquire a notion of freedom that allows them to increasingly detach themselves from a strict dependence on the surrounding world.

**Hans Briegel** is Professor of Theoretical Physics in Innsbruck and Research Director of the IQOQI (Institut für Quantenoptik und Quanteninformation der Österreichische Akademie der Wissenschaften). His research is focused on fundamental aspects of quantum theory, its applications in computer science, and in other branches of science. One of his main current interests is to understand the ultimate power of machines to compute and to simulate Nature. Models for quantum information processing, both in physical and in biological systems, are thereby being explored.

## Alle Interessent/innen sind herzlich eingeladen!