



## **Minerva Center**

## Kindly invites you to attend a talk by:



**Prof. Dominik R. Bach** University of Bonn, Germany

## Critical intelligence: computational characteristics of human escape

Abstract: Animals have to cope with immediate threat to survive and reproduce. Many species employ complex and sophisticated defensive behaviours. Rapid decisions between these actions, without much leeway for cognitive or motor errors, poses a formidable computational problem. In this lecture, I will give an overview of these challenges, and potential theoretical solutions. I will then present data from experiments designed to reveal the biologically implemented decision algorithms. Here, humans are exposed to various threats in a fully-immersive virtual reality, in which they can escape and run for shelter. These data challenge the view that human escape behaviour is instinctive or hard-wired. Instead, the underlying algorithm appears goal-directed, and dynamically updates decisions as the environment changes. In contrast, information-seeking behaviour might rely on simpler computations.

on

## Monday, December 19th at 14:15

Sharet Building, Room 214