



universität  
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Fakultät für Mathematik

## EINLADUNG

zu

einem didaktischen Vortrag

**im Rahmen der Habilitation von**

Paolo Piovano, PhD  
(Fakultät für Mathematik, Universität Wien)

**“Introduction to the direct method of the calculus of variations”**

## **“Introduction to the direct method of the calculus of variations”**

### Abstract:

*In this talk I will provide a basic introduction to the fundamental approach employed in the calculus of variations to directly ensure the existence of minimizers for a given functional. The method essentially consists in selecting a proper topology capable of guaranteeing both the compactness of minimizing sequences and the lower semicontinuity of the functional. I will begin by introducing such properties in topological spaces and by presenting the proof of the Weierstraß theorem. We will then move to Banach spaces and conclude by discussing some examples.*

**7. Oktober 2019,  
13:30 Uhr – 14:15 Uhr,**

**Fakultät für Mathematik,  
Oskar-Morgenstern-Platz 1,  
HS 02, EG.**

Michael Kunzinger