

## EINLADUNG

zum

## HABILITATIONSVORTRAG

**Dipl.-Ing. Dr. Eduard Nigsch**  
(Fakultät für Mathematik, Universität Wien)

**“The geometrization of the theory of Colombeau  
algebras”**

## **“The geometrization of the theory of Colombeau algebras”**

Abstract: We will discuss recent progress in developing Colombeau's theory of nonlinear generalized functions into a geometric theory. This involves the construction of spaces of nonlinear generalized sections of vector bundles which contain the corresponding spaces of distributional sections. Additionally, this has to be done in a way such that classical operations on smooth and distributional sections are preserved as far as possible.

While the classical theory of Colombeau algebras withstood such a geometrization for over two decades, the involved difficulties were recently overcome by a complete restructuring of the foundations of the theory. I will explain the basic problem as well as the most significant ideas involved in this process and how they combine to give the desired construction.

**Montag, 14. November 2016,  
15:00 Uhr – 16:00 Uhr,**

**Fakultät für Mathematik,  
Seminarraum 13, 2.OG.  
Oskar-Morgenstern-Platz 1  
1090 Wien**

Michael Kunzinger  
Christian Krattenthaler