

Fakultät für Mathematik, Informatik und Naturwissenschaften

## Kolloquium über Reine Mathematik

## Einladung zu einem Vortrag

# Dienstag, 22. Oktober 2024

### 17 Uhr, Geom H4

Prof. Shubham Dwivedi (Universität Hamburg)

<u>Title:</u> Geometric flows of G\_2 structures

#### Abstract:

We will give an overview of G\_2-structures on seven dimensional manifolds. We will then discuss a family of flows of  $G_2$ -structures on seven dimensional Riemannian manifolds. These flows are negative gradient flows of natural energy functionals involving various torsion components of  $G_2$ -structures. We will prove short-time existence and uniqueness of solutions to the flows and a priori estimates for some specific flows in the family. Time permitting, we will discuss some future problems. This talk is based on joint works with Panagiotis Gianniotis and Spiro Karigiannis.

> Vor dem Vortrag (ab 16.30 Uhr) stehen im Foyer vor Hörsaal H4 Kaffee und Tee bereit.