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## Oberseminar Dynamische Systeme

### Classifying proper Fredholm maps

Dienstag, 02. Mai 2023  
17:30 Uhr – Raum IA 1/181

**Lauran Toussaint**  
(Amsterdam)

#### Abstract:

Many partial differential equations are encoded by proper Fredholm maps between (infinite dimensional) Hilbert spaces. By the Pontryagin-Thom construction these maps correspond to finite dimensional framed submanifolds. This gives a connection between finite and infinite dimensional topology. In this talk, I will use this relation to classify proper Fredholm maps (up to proper homotopy) between Hilbert spaces in terms of the stable homotopy groups of spheres. This is based on work in progress with Thomas Rot.

Guests are very welcome!