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# Seminar

# *Uniform boundedness principle for Sobolev maps between manifolds*

## *Professor Jean Van Schaftingen*
### *Université catholique de Louvain*

***Abstract***

The classical uniform boundedness principle of Banach and Steinhaus for linear operators between Banach spaces is a theorem that transforms a bound depending on the point in the domain into a global uniform bound. The nonlinear character of Sobolev spaces between manifolds makes it unapplicable in these spaces. By relying on the structure of the domain of Sobolev maps, we have obtained a quite general uniform boundedness principle for energies of Sobolev maps, which allows us to recover known estimates and counterexamples for the problems of weak-bounded approximation, of extension of traces, of lifting and of superposition. The result covers fractional and first order Sobolev spaces.

This is a joint work with Antonin Monteil (Université catholique de Louvain).

Date: 13 March 2018 (Tuesday)
Time: 2:30pm – 3:30pm
Venue: Room 222, Lady Shaw Building,
The Chinese University of Hong Kong, Shatin

*All are Welcome*