

# Mathematics Colloquium at IUB

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will speak

*On the Regularity of Compositions of Functions*

**Date:** Monday, April 24, 2006

**Time:** 17:15

**Place:** Lecture Hall Research II, IUB

**Abstract:**

We will talk about properties of the nonlinear composition (superposition) operator  $T_f : g \rightarrow f \circ g$ , where  $g : \mathbb{R}^n \rightarrow \mathbb{R}$  is a measurable function belonging to some function space  $F$  and  $f : \mathbb{R} \rightarrow \mathbb{R}$  is at least continuous. As it is clear from the very beginning, the properties of  $T_f$  will strongly depend on the domain of definition. In our talk we will concentrate on the situation where  $F$  is a Sobolev space, but some remarks will be given also to the case of smoothness of fractional order.

**Colloquium Tea** at ca. 16:45 in the Tea Room of Research II, close to the lecture hall. Everybody is welcome!