

Kolloquium Angewandte Mathematik  
Prof. Thomas Apel (BauV1)  
Prof. Matthias Gerdts (LRT1)  
Prof. Joachim Gwinner (LRT1)  
Prof. Markus Klein (LRT1)

## Vortragsankündigung

Am **Mittwoch, dem 18.12.2013**, hält um **17.00 Uhr**

Herr **Prof. Dr. Serge Nicaise**  
(Université de Valenciennes et du Hainaut Cambrésis)

einen Vortrag über das Thema

### **A posteriori error estimates for a finite element approximation of transmission problems with sign changing coefficients**

Der Vortrag findet im **Raum 1204** in **Gebäude 150** statt.

#### **Abstract**

We will present the a posteriori error analysis of residual type of a transmission problem with sign changing coefficients. According to the results of Bonnet-BenDhia, P. Ciarlet, Jr., and Zwölf in 2010 if the contrast is large enough, the continuous problem can be transformed into a coercive one. We show that a similar property holds for the discrete problem for any regular mesh, extending the framework from the above mentioned paper. The reliability and efficiency of the proposed estimator will be shown. Our theoretical results will be illustrated by some numerical tests.

**Alle Interessierten sind dazu herzlich eingeladen.**