UNIVERSITÄT SIEGEN

Siegen, den 29.05.2013

Oberseminar Geomathematik

Im Rahmen des Oberseminars der AG Geomathematik findet der folgende Gastvortrag statt, zu dem hiermit alle Interessierten recht herzlich eingeladen sind. Der Vortrag wird von

Dr. Helga Nutz (TU Kaiserslautern)

am

Mittwoch, den 10.07.2013 um 14:30 Uhr

im Raum ENC-B 205

gehalten zum Thema

„Multiscale Regularization of Tensorial Satellite Gravity Gradiometry “.

Prof. Dr. V. Michel

Multiscale regularization of tensorial satellite gravity gradiometry

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In case of satellite gravity gradiometry (SGG) we have to deal mathematically with second order derivatives, preferably with the whole Hesse tensor, of the gravitational potential given at satellite's hight. Since satellite gradiometer measurements are taken in the interior of the harmonicity domain of the Earth's potential, the gradiometer problem of determining the external Earth's gravitational potential from second derivatives at satellite height is ill–posed. Hence, regularization techniques have to be applied to its solution. A tree algorithm based on spline approximation for regularization is proposed in terms of multiscale decorrelations of the potential starting from a "read in" process at highest level and followed by certain recursions for the subsequent lower levels.