Die Graduiertenschule MUSIC
mit dem Graduiertenkolleg ViVaCE – IRTG 1627 –
lädt ein zum Vortrag:

"Research in Frontier Materials in the Area of Advanced
Materials Development and Manufacturing Targeted at the
Automotive and Aerospace Industry"

Freitag, 20. Juni 2014, 09.30 Uhr
Graduiertenschule MUSIC, Appelstr. 11
Seminarraum A 501, 5. Etage

Dr. Matthias Weiss
Institute for Frontier Materials
Deakin University, Australia

The talk will give a general overview of the research performed at the Institute of
Frontier Materials (IFM) of Deakin University in the area of advanced materials
development and manufacturing that is targeted at the automotive and aerospace
industry. This will include:

- A general overview of Deakin University and the IFM
- Light Weighting
- Advanced metal Development
- Metal Forming and Advanced Manufacturing
- Carbon Fibres and Composites

Dr Weiss’s current research focus is the experimental and numerical investigation of
the behavior of sheet materials in forming. This includes the development of advanced
material models and testing methods to improve the representation of material
behavior in numerical models. Dr Weiss leads the sheet metal forming research
activities at the Institute for Frontier Materials (IFM) and has established over the last
five years one of the world’s largest roll forming research groups supported by
Australia’s most advanced roll forming research facility.

His research team has recently developed and commercialized a new experimental test
method that combined with inverse analysis generates advanced material input data for
roll forming process design. Additionally to that a recent $ 700,000 ARC LIEF bid put
forward by the group has been successful and will lead to the establishment of
Australia’s first flexible roll forming facility at IFM in 2015.