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***Kolloquium der Professur für Lehr- und Lernforschung der  
ETH Zürich:  
Das Lernen verstehen  
FS 2011***

Mittwoch, 2.3.11: 17.15 Uhr, ETH Hauptgebäude, E3

**Where in the Brain is Intelligence?**

*Prof. Dr. Aljoscha C. Neubauer, Dept. of Psychology University of Graz*

The scientific study of individual differences in human intelligence has a 100 year tradition that produced many insights about the structure, measurement and correlates. However, it was not before the 1990's that we learned about the neuro-scientific basis of this important human psychological trait. Since that time a considerable body of evidence has been accumulated on where in the brain intelligence is located and which aspects of brain structure and function correlate with individual differences in intelligence. The lecture gives an overview of the current state of knowledge regarding a) structural (i.e. neuro-anatomical) correlates of intelligence and their topography, and b) functional (i.e. brain activation) correlates. In view of recent reports stating that intelligence can be 'trained' the malleability of intelligence shall be analysed by juxtaposing and contrasting recent findings from neuro-genetics versus neuro-science studies of learning and brain plasticity. In this context, interactions with other constructs like expertise and knowledge shall be outlined. Finally the potential implications of neuroscientific evidence for the future assessment of intelligence shall be discussed.