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Universität Potsdam

SFB 1287 Limits of Variability in Language
Cognitive, Grammatical, and Social Aspects

7th SFB-Colloquium, Wednesday, 11 July 2018, 12.15 pm, Campus Golm, Building 28, Room 0.102

At the invitation of projects B02 and B03

Prof. Matthew Goldrick (Northwestern University) will give a talk on

Gradient Symbolic Computation: Dynamics of Distributed Symbol Systems

Matt Goldrick, Pyeong Whan Cho, Paul Smolensky, &Laurel Brehm

Gradient Symbolic Computation (GSC) is a cognitive architecture that integrates two seemingly contradictory strands of theoretical inquiry. Discrete, symbolic theories of cognition have made tremendous progress in explaining the systematic and productive nature of human behavior. At the same time, gradient dynamical systems models have provided key insights into the nature of neural computation. This presentation will introduce the fundamental principles of GSC, illustrating how it weaves together symbolic structure and gradient, dynamic, and parallel computation. Sketches of the application of this framework to empirical phenomena in sound structure (incomplete neutralization) and sentence processing (agreement attraction) will be discussed.

Everyone is cordially invited.

Please note that on **Friday, 13 July 2018, 12.15** pm, our short-term fellow, Lara Schwarz will give a complementary talk on **Uniting the theoretical and the empirical through modeling with Gradient Symbolic Computation**. Location: Campus Golm, Building 24, Room 0.50