

Kolloquium des Fachbereichs Mathematik und Informatik der Philipps-Universität Marburg

Im Kolloquium des Fachbereichs Mathematik und Informatik wird

Herr Prof. Dr. Greg Fasshauer, Colorado School of Mines, USA,

am **Donnerstag**, 27. Juni 2019,

zum Thema

„Some Remarks on the Construction of Designer Kernels and Their Applications“

vortragen.

Abstract.

Positive definite reproducing kernels (or covariance kernels) play a central role in many applications in numerical analysis, spatial statistics, as well as statistical learning. They appear in methods known, e.g., as radial basis functions, kriging, Gaussian processes, or simply kernel-based methods. Some kernels, such as the Gaussian kernel, multiquadric kernel or the family of Matern kernels, are very popular and are often used in a "one-size-fits-all" general purpose strategy. In this talk I will emphasize a different approach; that of custom-built designer kernels that have certain desirable built-in properties such as, e.g., periodicity, satisfaction of boundary conditions, or non-stationarity. After introducing a few different types of designer kernels I will illustrate their use with some examples from data fitting, the numerical solution of PDEs, and electrical power demand forecasting.

Der Vortrag findet um **16:00 Uhr** im **HS II, 03A16**, am Fachbereich Mathematik und Informatik, Lahnberge, statt.

Kaffee/Tee im SR VII, 05D01, um 15:30 Uhr.

Es laden ein die Dozenten der
Mathematik und Informatik