

Approximation of solutions of parametric PDEs by neural networks

Mones Raslan

February 7, 2019

In this talk we first present the basic framework of *reduced bases*, which form the basis for a variety of methods for the computationally feasible solution of parametric partial differential equations. Afterwards, we will exploit this theory in order to lay the groundwork for the efficient approximation of these solutions by neural networks. This talk is based on joint work (in progress) with Gitta Kutyniok, Philipp Petersen and Reinhold Schneider.