KERNEL METHOD FOR PARAMETRIC PDE WITH DOUBLED CONVERGENCE RATE

Ian Sloan

UNSW (Sydney), Australia i.sloan@unsw.edu.au

This talk, based on joint work with Frances Kuo and Vesa Kaarnioja, describes a periodic kernel method based on lattice points. It has a doubled rate of convergence compared to previously known estimates. With the use of "serendipitous" weight parameters the cost grows linearly with respect to both dimension and number of lattice points.