Weakly-normal basis vector fields in RKHS with an application to shape Newton methods

Kevin Sturm

Abstract

In this talk I discuss the approximation of normal vector fields defined on the boundary of a domain in the plane. For this purpose we introduce so-called weakly normal basis functions with the help of reproducing kernels. These normal functions enjoy several nice properties and are tailored to shape optimisation problems. This is joint work with Alberto Paganini.