

# Spline quasi-interpolation: application to the solution of integral equations

**Sara Remogna**

Department of Mathematics, University of Torino  
sara.remogna@unito.it

In this talk we present spline quasi-interpolating projectors on a bounded interval for the numerical solution of nonlinear Urysohn integral equations.

In particular, both in case of smooth kernels and in case of Green's function type ones, we present a spline quasi-interpolating projection method of Kulkarni's type with high order of convergence and a spline quasi-interpolating collocation method.

We explicitly construct the approximate solutions, we get results related to the convergence orders and we provide numerical tests, confirming the theoretical results.

This is a joint work with Catterina Dagnino, Department of Mathematics, University of Torino.