

Quasi- Interpolation for multi- variate scattered data

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Quasi- interpolation is a very useful method in the study of the approximation theory and its applications, since the method can yield the solution directly and do not require to solve any extra linear system of equations. The most famous contribution to the quasi- interpolation is the Strang- Fix condition, which gives a necessary and sufficient condition to the order of the convergence and the order of the polynomial reproducing. However the quasi- interpolation are mostly discussed for the grid data in the references. In this paper we will introduce a generalized Strang- Fix condition, which is related to the non- stationary quasi- interpolation. Based on the discussion of the generalized Strang- Fix condition we will generalize the quasi- interpolation scheme for multivariant scattered data.

I would like to change my theme of my talk on Tuesday 12:00 to 12:30. The old theme was "Quasi- interpolation for solving PDE".