

Announcement

Seminar on Deformation Quantization and Geometry

26.06.2026 at 14:00 s.t.

Seminarroom SE 31

LINUS MUSSMÄCHER (JOHANNES-KEPLER-UNIVERSITÄT LINZ)

FROG splines in isogeometric analysis

In isogeometric analysis, spline surfaces defined on arbitrary meshes are used to model smooth surfaces and perform simulations on them. In this talk, we will look at the special case of tensor product Bezier splines over quad meshes and discuss continuity conditions near extraordinary vertices (EVs). We will see why symmetric bases around EVs exist only in rare cases and look at the construction of an over-complete generating system that retains approximation power while adding symmetric properties. Finally, the properties and applications of these so-called FROG splines will be discussed.

Invited by Madeleine Jotz