

Interpolation and approximation on the Cubed Sphere grid.

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Interpolation and approximation on the sphere are important and old topics in harmonic and numerical analysis. They are essential for modelling in many domains such as numerical climatology, quantum chemistry, neutronic, data analysis on the sphere, etc. In this talk, we will present several properties and numerical results obtained recently on the interpolation and approximation problems with spherical harmonics on the Cubed Sphere.

Applications to spherical quadrature rules will be mentioned.

This is a joined work with J.-B. Bellet and M. Brachet.