# A brief Report on the article "Pseudodifferential equations on the sphere with spherical splines "

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Last update: Friday 27th January, 2012; my hope I come back to this article to learn more

**Abstract**: The authors solve strongly elliptic pseudodifferential equations on the sphere by Galerkin method using spherical splines. The class of equations includes for instance the Laplace-Beltrami equation, Stokes equation, weakly singular integral equations. They derive an optimal convergence rate of the approximation. Some numerical results are presented.

**Key words and phrases**: Pseudodifferential equations; Sphere; Spherical splines

**Subject Classification** : 65N30; 65N38; 65N15

## References

[TRA 08] Tran, T. and Pham, T. D.: Pseudodifferential equations on the sphere with radial basis functions: Error analysis. *Preprint 2008*, http://www.maths.unsw.edu.au/applied/pubs/apppreprints2008.html.