Sparse spectral methods for partial differential equations on spherical caps, highlights

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1. Constructs sparse discretisations for partial differential operators on spherical caps using orthogonal polynomials.
2. Approximations are observed to converge spectrally fast.
3. Optimal complexity is achieved for operators that are invariant to rotation around the pole.
4. Examples include (surface) Poisson equation, Helmholtz equation with variable coefficients, and the biharmonic equation.

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