This mathematics research project aims to construct tools for signal and image processing. These tools include smooth, compactly supported orthogonal multidimensional wavelets with other prescribed properties such as near-cardinality, symmetry and more, which are suitable for colour image processing.

**COMPETITIVE ADVANTAGE**

- World-first construction of multidimensional wavelets
- Application of novel techniques from Clifford analysis that are unknown to most researchers in signal and image processing
- Advanced techniques from optimisation theory

**PARTNERS**

- University of New Mexico, USA
- University of Goettingen, Germany
- Technical University of Munich, Germany

**IMPACT**

- Potential for improved treatment (especially compression) of colour images
- Potential for improved performance of higher-dimensional quadrature and approximation

**CAPABILITIES AND FACILITIES**

- High-performance computing facilities
- High-end capabilities in pure, applied and computational harmonic analysis
- International network of collaborators

**MORE INFORMATION**

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