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Vector Valued Wavelets and Multiresolution Analyses

In many situations in which wavelets are used to analyze data, the data is inherently vector valued in nature, such as color image data. Typically, scalar valued wavelets and the corresponding scalar valued filter banks are applied to vector valued data component-wise. We will discuss the construction of vector valued wavelets and multiresolution analyses, and the associated filter banks. This is joint work with Brody Johnson.