

abstract of talk

Wavelets on the Three Dimensional Sphere

There are two different approaches to Wavelet Theory. Although these two approaches seem very different, they yield the same results. On the one hand Wavelets on a Sphere address the problem of defining a dilation. On the other hand singular integrals and zonal functions in harmonic analysis admit no geometrical meaning of dilation in the case of spherical Wavelets. However the more general group theoretical thoughts admits that geometrical knowledge about dilation and gives a admissibility condition already known from the analytical approach as one of the wavelet defining conditions.

In the talk I will present and compare these two approaches and how they apply to concrete Wavelets obtained by the Weierstraß-kernel.