

Speaker: Manfred Stoll (USC)

Title: Reproducing kernels and radial eigenfunctions of the hyperbolic laplacian

Abstract: In the talks we compute the reproducing kernels of several classical Hilbert spaces of H -harmonic functions, i.e., functions annihilated by the hyperbolic laplacian. In our first talk we consider the classical Hardy space H^2 , and show how the reproducing kernel of this space leads to the characterization of all radial eigenfunctions of the hyperbolic laplacian, as well as to the evaluation of certain integrals in \mathbb{R}^N . In the second talk we compute the reproducing kernel of the classical weighted Bergman space of H -harmonic functions.