

The talk will survey the studies on H^∞ functional calculi of the Dirac operators on the plane and the unit sphere and their Lipschitz perturbations, Paley–Wiener theorem in the Clifford analysis setting, Shannon sampling theorem with monogenic sinc function, pointwise convergence of Fourier series on the sphere using Fueter’s theorem and its generalizations. The studies are related to some early work of M. Cowling, G. Gaudry, C. Li, A. McIntosh, T. Tao and myself, and lately developed mainly by K.I. Kou, S. Liu, F. Somme and myself.