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Monogenic Modular Forms in Two and Several Real and Complex Vector Variables

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Abstract. In this paper we deal with monogenic and k -monogenic Clifford-valued automorphic forms in two and several vector variables. We focus on the construction of several families of Eisenstein and Poincaré series within the setting of this function theory. The functions that we construct provide non-trivial examples for generalizations of the classical Hilbert modular forms within the framework of real and complex Clifford analysis.

Keywords. Monogenic Hilbert modular forms, biregular functions, Clifford analysis, several iterated Dirac operators, higher dimensional automorphic forms.

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