

A strategy for the classification of isoparametric submanifolds in Hilbert space

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Abstract:

It is conjectured that isoparametric submanifolds in Hilbert space of codimension at least 2 are, similar as in finite dimensions orbits of an (affine) s -representation. Here an affine s -representation is obtained from the isotropy representation of an infinite dimensional symmetric space G/K with G an affine Kac-Moody group by restriction (to an invariant submanifold which is isometric to a Hilbert space).