

ISOPARAMETRIC FOLIATIONS ON COMPLEX PROJECTIVE SPACES

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An isoparametric foliation of codimension one is a family of parallel hypersurfaces with constant mean curvature. For higher codimension, a celebrated theorem by Thorbergsson states that every irreducible isoparametric foliation on a sphere is homogeneous, i.e. it is the orbit foliation of an isometric action. If we replace spheres by complex projective spaces, such a homogeneity result is not true. In this talk I will explain the reason for this, and describe the main ideas of the classification of such foliations on complex projective spaces.