

VIRTUAL EAST-WEST SCV SEMINAR

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TOTALLY GEODESIC ISOMETRIES BETWEEN BOUNDED SYMMETRIC DOMAINS

Let Ω and Ω' be two bounded symmetric domains. In this talk, we investigate the properties of totally geodesic isometric embedding $f : \Omega \rightarrow \Omega'$ with respect to Bergman/Kobayashi metric. In particular, we discuss the question of holomorphicity of sufficiently smooth totally geodesic isometric polydisc $f : \Delta^q \rightarrow \Omega$. As an application, we give a sufficient condition for a totally geodesic isometric embedding $f : \Omega \rightarrow \Omega'$ to be holomorphic or anti-holomorphic in terms of the rank difference, when Ω and Ω' are irreducible. This is a joint work with Aeryeong Seo.
