Lie Groups and Representation Theory Seminar at the University of Tokyo

DATE   June 8 (Tue), 2010, 17:00–18:30

PLACE   Room 126, Graduate School of Mathematical Sciences

SPEAKER   **Soji Kaneyuki (**   **)** (Sophia University)

TITLE   Automorphism groups of causal Makarevich spaces

ABSTRACT   Let $G^\wedge$ be a simple Lie group of Hermitian type and $U^\wedge$ be a maximal parabolic subgroup of $G^\wedge$ with abelian nilradical. The flag manifold $M^\wedge = G^\wedge/U^\wedge$ is the Shilov boundary of an irreducible bounded symmetric domain of tube type. $M^\wedge$ has the G-invariant causal structure. A causal Makarevich space is, by definition, an open symmetric G-orbit M in $M^\wedge$, endowed with the causal structure induced from that of the ambient space $M^\wedge$, G being a reductive subgroup of $G^\wedge$. All symmetric cones fall in the class of causal Makarevich spaces. In this talk, we determine the causal automorphism groups of all causal Makarevich spaces.