

**Lie Groups and Representation Theory Seminar
at the University of Tokyo**

リ一群論・表現論セミナー

- DATE June 19 (Tue), 2007, 16:30–18:00
- PLACE Room 126, Graduate School of Mathematical Sciences
- SPEAKER **Yoshishige Haraoka** (原岡喜重) (Kumamoto University)
- TITLE Rigid local systems, integral representations of their sections and connection coefficients
- ABSTRACT A local system on $\mathbb{C}\mathbb{P}^1 - \{\text{finite points}\}$ is called physically rigid if it is uniquely determined up to isomorphisms by the local monodromies. We explain two algorithms to construct every physically rigid local systems. By applying the algorithms we obtain integral representations of solutions of the corresponding Fuchsian differential equation. Moreover we can express connection coefficients of the equation in terms of the integrals. These results will be applied to several differential equations arising from the representation theory.