

**Speaker:** George Androulakis (USC)

**Title:** The Tomita-Takesaki modular theory (Part I)

**Abstract:** The Tomita-Takesaki modular theory plays very important role in Quantum Statistical Physics and in the theory of non-commutative integration. In these talks we will present the Tomita-Takesaki modular theory assuming only knowledge of basic theory of operator algebras following the article: Rieffel, M.A., van Daele, A.: A bounded operator approach to Tomita-Takesaki theory. Pacific J. Math. 69, 187 (1977).