

Oksana YAKIMOVA, Univ of Cologne, GER

Title : “Compatible Poisson brackets related to Inönü–Wigner contractions of simple Lie algebras”

Abstract : Starting from two compatible Poisson brackets one can construct large families of Poisson-commutative subalgebras. Mishchenko–Fomenko subalgebras are manifestations of this phenomenon. Similarly to the MF setting, we consider pairs of Poisson structures on \mathfrak{g}^* for a reductive Lie algebra \mathfrak{g} . The first structure is given by the usual Lie bracket on \mathfrak{g} and the second one is related to a contraction of \mathfrak{g} . It turns out that the corresponding Poisson-commutative subalgebras have many interesting properties.