RYAD GHANAM, University of Pittsburgh at Greensburg Representations for low-dimensional Lie algebras

In this talk we will report on progress in the problem of finding linear representations for low-dimensional real Lie algebras. For each Lie algebra g of dimension less than or equal to 6, we will give a matrix Lie group whose Lie algebra is the given algebra in the list. We will also give a representation of the Lie algebra in terms of vector fields.