Non-Selfadjoint Representations of Lie Algebras and Operator Vessels

by E. Shamovich

In this talk I will discuss non-selfadjoint representations of real finite dimensional Lie algebras on a Hilbert spaces. To study such representations I will introduce the notion, due to M. S. Livsic, of a Lie algebra operator vessel. This will naturally lead us to study an overdetermined system on the associated simply connected Lie group. I will then talk about an application to the two-dimensional case.

This talk is based on joint work with V. Vinnikov.