

Application for a short visit of Prof. V.V. Sokolov at SISSA

Purpose of the visit :

The purpose of the short visit of the applicant to the International School for Advanced Studies (SISSA -Trieste) is to update the state of the art in the following strongly correlated topics:

a) Classification theory of decompositions of current algebras into Taylor series and complementary subalgebras; applications to the classification theory of integrable ODEs and PDEs via Lax representation.

b) Classification theory of pencils of linear Poisson brackets on the dual of a semisimple Lie algebra and elliptic bihamiltonian structures

d) Applications to the algebro-geometrical integrability theory of generalized tops and other systems via the method of Separation of Variables.

The beginning of a collaboration on the abovementioned topics with Prof. G. Falqui is envisaged.

The applicant, as well as the SISSA participants to the MISGAM project, are expert in these fields and would benefit from an intensive discussion of their mutual interests.