

DEPARTMENT OF MATHEMATICS

ORAL EXAMINATION

Minor area: LIE ALGEBRA AND LIE GROUPS

Textbooks:

1. Introduction to Lie Algebra and Representation Theory, James E. Humphreys, Springer-Verlag, 1972.
2. Complex Semisimple Lie Algebras, J-P. Serre, Springer-Verlag, 1987.

Topics:

1. Humphreys' book, Chapter I, II, III, IV, V, VI (§20-22).
2. Relationship between Lie algebras and Lie groups.
3. Complex reductive Lie groups, compact Lie groups and Lie algebras.