CONTENTS

Lecture 1 - Introduction. Plan of the lectures. Poisson structures	5
Lecture 2 - Poisson Structures on Finite-dimensional Manifolds. Hamiltonian Systems. Completely Integrable Systems	11
Lecture 3 – Classical Analogue of the Dirac Monopole. Complete Integrability and Algebraic Geometry	17
Lecture 4 - Poisson Structures on Loop Spaces. Systems of Hydrodynamic Type and Differential Geometry	29
Lecture 5 - Non-linear WKB (Hydrodynamics of Weakly Deformed Soliton Lattices)	45
References	57