

PHYSICS— USPEKHI

English edition of *Uspekhi Fizicheskikh Nauk* January 1994
Volume 164 Number 1

Contents

REVIEWS OF TOPICAL PROBLEMS

- Integrability and matrix models** 1
A Morozov

PHYSICS OF OUR DAYS

- Possible existence of asymptotic freedom of gravitational interaction in nature** 57
M A Markov

FROM THE CURRENT LITERATURE

- Fermi-gas approach to the problem of superfluidity in three- and two-dimensional solutions of ^3He in ^4He** 69
M Yu Kagan

INSTRUMENTS AND METHODS OF INVESTIGATION

- Standard quantum limits of measurement errors and methods of overcoming them** 81
Yu I Vorontsov

FROM THE HISTORY OF PHYSICS

- George Green: his life and works (on the occasion of the bicentenary of his birthday)** 97
Yu A Lyubimov