



# Advanced Methods of Modern Theoretical Physics: **INTEGRABLE AND STOCHASTIC SYSTEMS**

Joseph Buchbinder (BLTP JINR, Dubna)  
**Aspects of effective action in quantum field theory**

Sergey Derkachov (PDMI RAS, Saint Petersburg)  
**Open Toda chain: Q-operator, orthogonality and completeness of eigenfunctions**

Dmitri Fursaev (BLTP JINR, Dubna)  
**Classical and Quantum Physics of Plane Gravitational Shock Waves**

Nikolay Gulitsky (BLTP JINR, Dubna & SPBU, Saint Petersburg)  
**Renormalization Group, Stochastic Dynamics and Quantum Field Theory**

Alexey Isaev (BLTP JINR, Dubna)  
**Introduction to the theory of classical and quantum integrable systems**

Mikhail Nalimov (BLTP JINR, Dubna & SPBU, Saint Petersburg)  
**Functional integral formalism for describing classical and quantum equilibrium  
and nonequilibrium systems**

Alexander Povolotsky (BLTP JINR, Dubna & NRU HSE, Moscow)  
**Toy models and universal laws**

Anton Baushev (BLTP JINR, Dubna)  
**Observing gravitational waves: yesterday, today, tomorrow**

