

Theoretical Physics

Ural Federal University named after the first President of Russia B.N. Yeltsin

Degree or qualification is awarded: **Kandidat Nauk (Candidate of Sciences)**

Language of study: **English**

Mode of study: **full-time**

Duration: **4 years**

Availability of free education: **yes**

Price: **1 750 USD per year**

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The fields studied in this program are

- (pseudo)spin algebra, atoms in crystals;
- exchange interactions;
- (pseudo)spin Hamiltonians;
- Bose-Hubbard models;
- phase diagrams;
- topological defects;
- the Monte-Carlo technique and computer modeling, molecular and cell biophysics;
- electron-conformational theory of proteins;
- ion dynamics in cells and computer modeling of calcium dynamics, theoretical studies of thermodynamic and kinetic properties of semiconductors with impurities of transition elements, magnetic properties of monoaxial chiral helimagnets and to carry out theoretical analysis of their functionality in spintronics applications.

Specializations within this programme