

Low Temperature Physics/Физика низких температур

Том 44, № 6, 2018

Специальный выпуск

Июнь 2018

К 90-летию со дня рождения А.А. Абрикосова

Ответственные за выпуск А.А. Варламов, Ю.А. Колесниченко, В.М. Локтев

Содержание

<i>Vступление</i>	599
<i>J.I. Vestgård, T.H. Johansen, and Y.M. Galperin</i> Nucleation and propagation of thermomagnetic avalanches in thin-film superconductors (Review Article)	603
<i>A.A. Kordyuk</i> Electronic band structure of optimal superconductors: from cuprates to ferropnictides and back again (Review Article)	623
<i>E.V. Gorbar, V.A. Miransky, I.A. Shovkovy, and P.O. Sukhachov</i> Anomalous transport properties of Dirac and Weyl semimetals (Review Article)	635
<i>Juan Carlos Campuzano</i> Abrikosov and the path to understanding high- T_c superconductivity	658
<i>V.P. Mineev</i> Theory of type-II superconductivity in ferromagnetic metals with triplet pairing	663
<i>I. Božović, A.T. Bollinger, J. Wu, and X. He</i> Can high- T_c superconductivity in cuprates be explained by the conventional BCS theory?	674
<i>Andrey V. Chubukov and Dmitry Mozyrsky</i> Evolution of the dynamics of neutral superconductors between BCS and BEC regimes: the variational approach	684
<i>A.V. Samokhvalov, A.S. Mel'nikov, and A.I. Buzdin</i> Vortex molecules in thin films of layered superconductors	691
<i>O. Entin-Wohlman, R.I. Shekter, M. Jonson, and A. Aharony</i> Rashba proximity states in superconducting tunnel junctions	701
<i>T. Rokhmanova, S.S. Apostolov, N. Kvitska, and V.A. Yampol'skii</i> Effect of a dc magnetic field on the anomalous dispersion of localized Josephson plasma modes in layered superconductors	711
<i>V.O. Shubnyi, V.P. Gusynin, S.G. Sharapov, and A.A. Varlamov</i> Entropy per particle spikes in the transition metal dichalcogenides	721
<i>G.P. Mikitik and Yu.V. Sharlai</i> Oscillations of magnetization in topological line-node semimetals	727
<i>A.A. Eremko, L.S. Brizhik, and V.M. Loktev</i> On the theory of the Schrödinger equation with the full set of relativistic corrections	734
<i>J.A.M. van Ostaay and S.I. Mukhin</i> Phonon-kink scattering effect on the low-temperature thermal transport in solids	747
<i>Yu.Kh. Vekilov and O.M. Krasilnikov</i> Elastic phase transitions in solids. High pressure effect	758

Low Temperature Physics/Fizika Nizkikh Temperatur

Volume 44, No. 6, 2018

Special Issue

June, 2018

To the 90th birthday of A.A. Abrikosov

Guest Editors A.A. Varlamov, Yu.A. Kolesnichenko, V.M. Loktev

Contents

<i>Preface</i>	599
<i>J.I. Vestgården, T.H. Johansen, and Y.M. Galperin</i> Nucleation and propagation of thermomagnetic avalanches in thin-film superconductors (Review Article)	603
<i>A.A. Kordyuk</i> Electronic band structure of optimal superconductors: from cuprates to ferropnictides and back again (Review Article)	623
<i>E.V. Gorbar, V.A. Miransky, I.A. Shovkovy, and P.O. Sukhachov</i> Anomalous transport properties of Dirac and Weyl semimetals (Review Article)	635
<i>Juan Carlos Campuzano</i> Abrikosov and the path to understanding high- T_c superconductivity	658
<i>V.P. Mineev</i> Theory of type-II superconductivity in ferromagnetic metals with triplet pairing	663
<i>I. Božović, A.T. Bollinger, J. Wu, and X. He</i> Can high- T_c superconductivity in cuprates be explained by the conventional BCS theory?	674
<i>Andrey V. Chubukov and Dmitry Mozyrsky</i> Evolution of the dynamics of neutral superconductors between BCS and BEC regimes: the variational approach	684
<i>A.V. Samokhvalov, A.S. Mel'nikov, and A.I. Buzdin</i> Vortex molecules in thin films of layered superconductors	691
<i>O. Entin-Wohlman, R.I. Shekter, M. Jonson, and A. Aharony</i> Rashba proximity states in superconducting tunnel junctions	701
<i>T. Rokhmanova, S.S. Apostolov, N. Kvitska, and V.A. Yampol'skii</i> Effect of a dc magnetic field on the anomalous dispersion of localized Josephson plasma modes in layered superconductors	711
<i>V.O. Shubnyi, V.P. Gusynin, S.G. Sharapov, and A.A. Varlamov</i> Entropy per particle spikes in the transition metal dichalcogenides	721
<i>G.P. Mikitik and Yu.V. Sharlai</i> Oscillations of magnetization in topological line-node semimetals	727
<i>A.A. Eremko, L.S. Brzhik, and V.M. Loktev</i> On the theory of the Schrödinger equation with the full set of relativistic corrections	734
<i>J.A.M. van Ostaay and S.I. Mukhin</i> Phonon-kink scattering effect on the low-temperature thermal transport in solids	747
<i>Yu.Kh. Vekilov and O.M. Krasilnikov</i> Elastic phase transitions in solids. High pressure effect	758