

International Conference «Statistical Physics 2006. Condensed Matter:
Theory and Application» 12–15 September, 2006, Kharkiv, Ukraine

The Conference was dedicated to the 90th anniversary of Ilya Lifshitz,
which was a founder of the school of Condensed Matter Theory in Kharkiv



Preface

This issue of *Fizika Nizkikh Temperatur* contains the selected plenary talks presented on the International Conference «Statistical Physics 2006. Condensed Matter: Theory and Applications (CMPT06)», 12–15 September, 2006, Kharkiv, Ukraine. The Conference is the follow up of the «Statistical Physics 2005», Lviv, August 2005 in the renewed tradition of conferences on Statistical Physics and related topics, established in Ukraine in the early 70s of the last century. The Conference was convened at the B. Verkin Institute for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine, one of the leading research centers of the field.

The Conference was dedicated to the 90th anniversary of Ilya Lifshitz, one of the world's foremost theoretical physicists in condensed matter. Lifshitz's name is associated with many important results and several new branches of quantum condensed matter theory: disordered systems, electron theory of metals in its modern formulation — so called «fermiology», polymers and biopolymers, quantum crystals and quantum diffusion and others. He possessed an astonishingly wide range of grasp in physics, fundamental problems first of all as well as an amazing gift for revealing profound and important theoretical physics aspects in seemingly «applied» problems, including

an efficient and elegant theoretical techniques. A striking example of this approach is the theory of coalescence.

Lifshitz was born and spent more than fifty years in Kharkiv. Here he organized and run his seminar on theoretical physics, a point of attraction and high activity in theoretical physics Kharkiv and beyond, here his widely known school of condensed matter theory appeared and prospered. Since 1969 till his death in 1982 Lifshitz was the Head of Department of Theoretical Physics of the Institute for Physical Problems in Moscow, the position, held previously by L. Landau.

This is why it is a honor and pleasure for us to dedicate the Conference to 90-birthday of Ilya Mikhailovich Lifshitz, outstanding scientist and personality.

The Organizing Committee gratefully acknowledges the financial support of the National Academy of Sciences of Ukraine and the B. Verkin Institute for Low Temperature Physics and Engineering. We would like also to thank numerous colleagues from the Institute, the Department of Theoretical Physics first of all, for their enthusiasm and efforts that helped a lot for the Conference to be organized and run.

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