

ПЕРСОНАЛІЇ, ХРОНІКА, БІБЛІОГРАФІЯ
PERSONALIA, MEETINGS, BIBLIOGRAPHY

*“ІЗИНГІВСЬКІ ЧИТАННЯ – 2006”: 10-ИЙ ЩОРІЧНИЙ СЕМІНАР ІЗ ФАЗОВИХ ПЕРЕХОДІВ
ТА КРИТИЧНИХ ЯВИЩ*
(Львів, 10–12 травня, 2006)

*“ISING LECTURES – 2006”: THE 10TH ANNUAL WORKSHOP ON PHASE TRANSITIONS AND
CRITICAL PHENOMENA*
(Lviv, May 10–12, 2006)

Starting with the year 1997 the Institute for Condensed Matter Physics of the National Academy of Sciences of Ukraine in cooperation with the Department for Theoretical Physics of the Ivan Franko National University of Lviv has been organizing Ising Lectures: a workshop on physics of phase transitions and critical phenomena. The workshop aims at promoting and deepening studies of critical phenomena as well as exchanging information between scholars working in this field. This year the workshop consisted of two series of lectures given by Dr. Ralph Kenna (Faculty of Engineering and Computing, Coventry University, England) and Dr. Serhij Sorokov (Institute of Condensed Matter Physics, National Acad. Sci. of Ukraine, Lviv). The lectures given by Ralph Kenna were concerned with general problems of criticality, they treated the scaling relations which are one of the cornerstones during the description of the second-order phase transitions. In particular, the scaling relations allow to find a value of any of the critical exponents governing the second order phase transition if the values of two other exponents are known. Recently, the scaling relations for the logarithmic corrections were discovered (see R. Kenna, D. A. Johnston, W. Janke, *Phys. Rev. Lett.* **97** (2006) 155702; *Phys. Rev. Lett.* **96** (2006) 115701). Multiplicative logarithmic corrections to scaling are frequently encountered in the critical behavior of certain statistical-mechanical systems. In his lectures entitled “Scaling Relations – Old and New” Ralph Kenna gave an overview of theoretical and experimental work that lead by the early 1960’s to the establishment of the existence of universality classes and then to the discovery (advanced especially by Essam and Fisher) of the scaling relations for systems with second-order phase transitions. Another part of the lectures concerned the Lee–Yang description of phase transitions, which allows the parameters controlling the system (the temperature or magnetic field) to become complex and relates to the so-called Lee–Yang zeros to the critical parameters. In the final part of the lectures, a Lee–Yang zero approach is used to obtain scaling relations between the exponents of logarithmic corrections.

The lectures given by Serhij Sorokov, “Spin Glasses With Long- and Short-Range Interactions” were devoted to theoretical description of spin and proton glasses. First the main models (Sherrington–Kirkpatrick, Edwards–Anderson, p-spin spherical model), quantities (spin-glass parameter, overlap distribution function, complexity) and techniques (especially the replica trick) used in the spin-glass theory were reviewed. Separately, the theory of spin glasses infinite and with essential short-range interactions was considered. The final part of the lectures concerned proton glasses of the $\text{Rb}_{1-x}(\text{NH}_4)_x\text{H}_2\text{PO}_4$ -type.

More details about the Ising Lectures may be found at <http://www.icmp.lviv.ua/ising/index.html>.

Yurij Holovatch