Entanglement and order in many-body systems
Zozulya, O.S.

Citation for published version (APA):
Zozulya, O. S. (2011). Entanglement and order in many-body systems

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
Acknowledgements

I express gratitude to my supervisor, Kareljan Schoutens, for his wisdom and patience in guiding me through the perils of scientific research. Kareljan, your broad knowledge of physics and support for new ideas were the key to the successful outcome of my PhD project. Thank you for letting me to experience the scientific environment of one of the world’s leading groups in statistical physics.

All the results presented here were obtained in a close collaboration with Masudul Haque, whose energy and enthusiasm were the major factors behind publications. Thank you Masud for conversations about physics, politics, comments about my writing and coding style, your humor and late dinners in many restaurants around the institute.

I have benefited enormously from numerous discussions with senior colleagues, among them are Bernard Nienhuis, Ad Pruisken, Jan-Sebastien Caux, Pasquale Calabrese, Nicolas Regnault, Sander Bais, Theo Nieuwenhuizen.

I am also indebted to my colleagues at ITF and WZI for many interesting discussions and outings: Rob, Liza, Bahar, Gerardo, Srdjan, Jeremie, Sheer, Joost, Lotte, Piotr, Sara, Keiichi, Balt, Johannes, Phil, Richard, Fendy, Alessia, Antje, Salvo, Salima, Kuba, Javier, Sanli, Nacho, Michiel, Milosz, Paul, Guillaume, Jorn, Milena, Jelena, Benoit, Shanna, Antoine. Special thanks to Ingmar for sharing the dutch experience of living in the flat swarmed with mice. Gianni and Xerxes are responsible for a joy of many late-night discussions about the meaning of everything and physics of nothing. I also want to thank Jesper for translating the Summary into Dutch.

I have spent marvelous time with my friends from Utrecht: Ramona Biholar, Madalina Busuioc, Aaron Chase, Elspeth Greer, Garbriel Grigorescu, Xvevdet Gegolaj, Jan-Bas de Graaff, Adam Ehrat, Emi Kirilova, Ianina Lipara, Andor Lukacs, Jordan Rizov, Catalin Rusu, Dirk Smits, Emma Sydenham, Aaron Swaving, Arne Verliefde, Sofie Willems, Asya Zhelyazkova, Sahmiso Zinzombe, Lila Zotou and Genian Zyberi. Thank you guys for nice parties, travels, and diving into the sea on the 1 of January.

Certainly, my life would be dull and boring without interaction with the russian-speaking circle of Kostya and Lyuda Shundyak, Dima Makogon, Oleksandr Poplavskii, Ruslan Sepkhanov, Oleg Antoniuk, Igor Burmistrov, Maxim Sladkov, Oleksandr and Oksana Mikhnenko, Sergey Denega, Igor Shokarev, Yaroslav Bazaliy and friends from student times in Kiev Alexander Viznyuk, Dima Yakubovsky, Dima Pyanticky, Lyudmila Adamska, Alexander Solovyov, Roman Naryshkin, Xenia Rulik, Yura Karpenko, Vova and Ira Solovyov, Viktro Kotlyar, Sasha Grigorenko, Oleg Shevtsov.
I am also grateful to my family in Ukraine, who supported my physics and other endeavors from the early age.

This thesis would have never been completed without vigilant encouragement from my sweet girlfriend, Nancy Djadda, and partially her sister Nahid. Thank you Nancy for all the good time that we had together and for showing me the light in the end of the tunnel during the difficult periods.