# Agnieszka Maria Werpachowska

Founder and CEO of Averisera Ltd

Personal details

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## Past Work

2013-2014 **Mathematical modeller and C++ developer; Lead mathematical modeller in joint project with OECD**
UK Health Forum (London-based NGO)

- Statistical research and quantitative modelling in epidemiology, designing mathematical models and their numerical implementation, building hardware infrastructure for computationally intensive simulations

2012-2013 **Postdoctoral research associate**
Department of Physics and Astronomy, University College London (UCL)

- Research in non-equilibrium quantum thermodynamics and open quantum systems

2011-2011 **Independent visiting researcher**, Department of Physics and Astronomy, UCL

- Research in disorder and biomolecular complex systems

## Education and Qualifications

2005-2011 **PhD** with distinction (spintronics and nanotechnology), Institute of Physics, Polish Academy of Sciences (PAS)

2003-2005 **MSc** (condensed matter physics), College of Science at Institute of Physics, PAS, Warsaw, Poland

2000-2003 **BSc** (multidisciplinary studies in mathematics, physics and chemistry; specialty: computer modelling of phenomena), College of Science at scientific institutes of PAS, Warsaw, Poland

## Awards

- PhD awarded with distinction, 2011
- IUPAP Young Author Best Paper Award, International Conference on the Physics of Semiconductors, Rio de Janeiro, Brazil, 2008
- Scholarship of the President of Polish Academy of Sciences for doctoral students, 2007-2009 (terminated upon leaving Poland)
- Recommended by UCL for an individual EPSRC fellowship based on my research as visitor, 2012

## Presentations and Publications

21 conference talks, poster presentations, grant reports and seminars at top international science events and institutions

1. Werpachowska, A. and R. Werpachowski, *Microsimulations of demographic changes in England and Wales under various EU referendum scenarios*, arXiv:1606.04636 (under review)

2. Werpachowska, A. and R. Werpachowski, *Cross-sectional Markov model for trend analysis of observed discrete distributions of population characteristics*, arXiv:1510.06787 (under review)

3. Werpachowska, A., *Reduced operator approximation for open quantum systems*, Open Syst. Inf. Dyn. **22**, 1550008 (2015)

4. Werpachowska, A., *Comment on "Excitons in molecular aggregates with Lévy-type disorder: Anomalous localization and exchange broadening of optical spectra"*, Phys. Rev. Lett. **109**, 259701 (2012)

5. Werpachowska, A., *Exact and approximate methods of calculating the sum of states for noninteracting classical and quantum particles occupying a finite number of modes*, Phys. Rev. E **84**, 041125 (2011)

6. Werpachowska, A. *Löwdin calculus for multiband Hamiltonians*, arXiv:1101.5775 (2011)

7. Werpachowska, A. and T. Dietl, *Theory of spin waves in ferromagnetic (Ga,Mn)As*, Phys. Rev. B **82**, 085204 (2010)

8. Werpachowska, A. and T. Dietl, *Theory of spin waves in ferromagnetic (Ga,Mn)As*, AIP Conference Proceedings, Vol. 1399, 663 (2010)

9. Werpachowska, A. and T. Dietl, *Effect of inversion asymmetry on the anomalous Hall effect in ferromagnetic (Ga,Mn)As*, Phys. Rev. B **81**, 155205 (2010)

10. Chiba, D., A. Werpachowska *et al.*, *Anomalous Hall Effect in Field-Effect Structures of (Ga,Mn)As*, Phys. Rev. Lett. **104**, 106601 (2010)

11. Werpachowska, A. and Z. Wilamowski, *The RKKY coupling in diluted magnetic semiconductors*, Mater. Sci.-Poland **24**, 675 (2006)

12. Wilamowski, Z. and A. Werpachowska, *Spintronics in semiconductors*, Mater. Sci.-Poland **24**, 803 (2006)

13. Werpachowska, A., *Electron billiards* in Polish popular scientific magazine *Delta* (2004)

## Other

**Referee** for *International Journal of Microsimulation*, *IOP Journal of Physics: Condensed Matter* and *Physical Review Letters*