

Curriculum Vitae

Tomáš Jungwirth

Born: October 23, 1967, Praha, Czech Republic

Affiliation: Institute of Physics, Academy of Sciences of the Czech Republic; University of Nottingham, UK

Education and professional career:

1991	M.S. degree in theoretical physics, Charles University Praha
1997	PhD. degree in theoretical condensed matter physics, Charles University Praha
1997-1999	Postdoctoral Fellow, Indiana University
2000-2002	Research Fellow, University of Texas
2002-2004	Adjunct Professor, University of Texas
2001-present	Senior Research Scientist, Institute of Physics ASCR Praha
2004-present	Professor-Chair, University of Nottingham

Professional experience:

Field: theoretical condensed matter and many-body physics

Topics: electronic properties of semiconductor heterostructures and nanostructures, quantum Hall effect, metal and semiconductor spintronics, carrier-induced ferromagnetism in diluted magnetic semiconductors

Accomplishments, awards, and international recognition:

more than 70 publications in international peer-reviewed journals (14 in Phys. Rev. Lett. and an article in Nature); over 1000 citations in the scientific literature; regular invitations to university colloquia, international conferences.

Academy of Sciences of the Czech Republic Prize, 2005

University of Nottingham Professorship, 2004

University of Texas Professorship, 2002

Otto Wichterle Prize of the Academy of Sciences of the Czech Republic, 2002

Important Achievement of the Academy of Sciences of the Czech Republic, 1999, 2002

NATO-NSF Advanced Fellowship, 1999

Bolzano Foundation Prize of the European Physical Society, 1996

Josef Hlávka Prize, 1996

Milan Odehnal Prize of the Union of Czech Mathematicians and Physicists, 1996

Selected publications:

1. J. Wunderlich, B. Kaestner, J. Sinova, T. Jungwirth, "Experimental observation of the spin-Hall effect in a two dimensional spin-orbit coupled semiconductor system", Phys. Rev. Lett. 94 047204 (2005)
2. Jairo Sinova, Dimitrie Culcer, Q. Niu, N. A. Sinitsyn, T. Jungwirth, A.H. MacDonald, "Universal Intrinsic Spin-Hall Effect", Phys. Rev. Lett. 92, 126603 (2004)
3. Yugui Yao, L. Kleinman, A. H. MacDonald, Jairo Sinova, T. Jungwirth, Ding-sheng Wang, Enge Wang, Qian Niu, "First Principles Calculation of Anomalous Hall Conductivity in Ferromagnetic bcc Fe", Phys. Rev. Lett. 92, 037204 (2004).

4. T. Jungwirth, Jairo Sinova, K.Y. Wang, K. W. Edmonds, R.P. Campion, B.L. Gallagher, C.T. Foxon, Q. Niu, A.H. MacDonald, "DC-transport properties of ferromagnetic (Ga,Mn)As semiconductors", *Appl. Phys. Lett.* 83, 320 (2003).
5. J. König, J. Schliemann, T. Jungwirth, and A.H. MacDonald, Ferromagnetism in (III,Mn)V semiconductors, in *Electronic Structure and Magnetism of Complex Materials*, edited by D.J. Singh and D.A. Papaconstantopoulos (Springer Verlag 2003).
6. T. Jungwirth, Q. Niu, and A.H. MacDonald, "Anomalous Hall effect in ferromagnetic semiconductors", *Phys. Rev. Lett.* 88, 207208 (2002).
7. Byounggak Lee, T. Jungwirth, and A.H. MacDonald, "Ferromagnetism in Diluted Magnetic Semiconductor Heterojunction Systems", *Semicond. Sci. Technol.* 17, 393 (2002).
8. T. Jungwirth and A.H. MacDonald, "Resistance spikes and domain wall loops in Ising quantum Hall ferromagnets", *Phys. Rev. Lett.* 87, 216801 (2001).
9. T. Jungwirth, W.A. Atkinson, B. Lee, and A.H. MacDonald, "Interlayer coupling in ferromagnetic semiconductor superlattices", *Phys. Rev. B* 59, 9818 (1999).
10. V. Piazza, V. Pellegrini, F. Beltram, W. Wegscheider, T. Jungwirth, and A.H. MacDonald, "First Order Phase Transition in a Quantum Hall Ferromagnet", *Nature* 402, 638 (1999).