

# Curriculum Vitae

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## P E R S O N A L I N F O R M A T I O N

NAME: ZOLTÁN ZIMBORÁS  
NATIONALITY: HUNGARIAN  
FAMILY STATUS: MARRIED  
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## E D U C A T I O N

2009: PHD IN PHYSICS ("SUMMA CUM LAUDE"), EÖTVÖS UNIVERSITY, BUDAPEST. TITLE OF THE THESIS: "THE VON NEUMANN ENTROPY ASYMPTOTICS OF PURE QUASIFREE STATES", SUPERVISOR: PÉTER VECSENYÉS.

2003: COMPLETED GRADUATE SCHOOL STUDIES, EÖTVÖS UNIVERSITY, BUDAPEST.

2000: MSc IN PHYSIC, EÖTVÖS UNIVERSITY, BUDAPEST.

AWARDS DURING UNIVERSITY: 1<sup>ST</sup> PRIZE OF THE "RUDOLF ORTVAY THEORETICAL PHYSICS CONTEST", 3<sup>RD</sup> PRIZE OF THE "STUDENTS'S SCIENTIFIC CIRCLE" AWARDED BY THE FACULTY.

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## P O S I T I O N S

2009.07.01-

RESEARCH SCIENTIST, INSTITUTE FOR SCIENTIFIC INTERCHANGE FOUNDATION, TORINO

2007.08.01-2009.06.30:

RESEARCH ASSISTANT AT THE UNIVERSITY OF SAARLAND, SAARBRÜCKEN.

2003 – 2007:

TEACHING ASSISTANT AT THE ST. STEPHEN UNIVERSITY, GÖDÖLLŐ-BUDAPEST, AND THE CENTRAL EUROPEAN UNIVERSITY, BUDAPEST.

RESEARCH ASSISTANT AT THE RESEARCH INSTITUTE FOR PARTICLE AND NUCLEAR PHYSICS, BUDAPEST.

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## T E A C H I N G E X P E R I E N C E

- EXERCISE CLASSES ON **QUANTUM MECHANICS** FOR PHYSICS STUDENTS (UNIVERSITY OF SAARLAND, SAARBRÜCKEN).
- SEMINAR ON **QUANTUM INFORMATION THEORY** FOR PHYSICS STUDENTS (UNIVERSITY OF SAARLAND, SAARBRÜCKEN).
- EXERCISE CLASSES ON **STATISTICS** AND STATISTICAL SOFTWARE (SPSS) FOR ECONOMY STUDENTS (COMPUTER AND STATISTIC CENTER, CENTRAL EUROPEAN UNIVERSITY, BUDAPEST). EXERCISE CLASSES ON **GROUP THEORY** FOR PHYSICS STUDENTS (EÖTVÖS UNIVERSITY, BUDAPEST).

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## C O M P U T E R   S K I L L S

OPERATING SYSTEMS: LINUX, WINDOWS.

TEXT/GRAPHICS: LATEX, MICROSOFT OFFICE, X-FIG

PROGRAMING LANGUAGES: C/C++

MATHEMATICAL/STATISTICAL SOFTWARE: MAPLE, MATHEMATICA, MATLAB, SPSS

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## L A N G U A G E S

HUNGARIAN (MOTHER TONGUE), ENGLISH (FLUENT), NORWEGIAN (FLUENT), SWEDISH (FLUENT), GERMAN (BASIC)

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## L I S T   O F   P U B L I C A T I O N S

[10] Z. KÁDÁR AND Z. ZIMBORÁS, "ENTANGLEMENT ENTROPY IN QUANTUM SPIN CHAINS WITH BROKEN REFLECTION SYMMETRY", *PHYS. REV. A*, **82**, 032334 (2010).

[9] M. KEYL, D.-M. SCHLINGEMANN, AND Z. ZIMBORÁS, "ON THE BOSONIC BEHAVIOR OF MEAN-FIELD FLUCTUATIONS IN ATOMIC ENSEMBLES", *ARXIV*: 1006.3461

[8] J. GÜTSHOW, S. UPHOFF, R.F. WERNER, AND Z. ZIMBORÁS "TIME ASYMPTOTICS AND ENTANGLEMENT GENERATION OF CLIFFORD CELLULAR AUTOMATA ", *J. MATH. PHYS.* **48**, 102110 (2010),

[7] Z. ZIMBORÁS, "THE VON NEUMANN ENTROPY ASYMPTOTICS OF PURE QUASIFREE STATES", PHD THESIS, ELTE, BUDAPEST (2008)

[6] S. FARKAS AND Z. ZIMBORÁS, "THE VON NEUMANN ENTROPY ASYMPTOTICS IN MULTIDIMENSIONAL FERMIONIC SYSTEMS", *J. MATH. PHYS.* **48**, 102110 (2007).

[5] F. IGLÓI, R. JUHÁSZ, AND Z. ZIMBORÁS, "ENTANGLEMENT ENTROPY OF APERIODIC QUANTUM SPIN CHAINS", *EUROPHYSICS LETTERS* **79**, 37001 (2007).

[4] R. JUHÁSZ AND Z. ZIMBORÁS, "ENTANGLEMENT ENTROPY IN APERIODIC SINGLET PHASES", *J. STAT. MECH.* P04004 (2007).

[3] Z. ZIMBORÁS, "WHAT CAN ONE RECONSTRUCT FROM THE REPRESENTATION RING OF A COMPACT GROUP", *BULG. JOUR. PHYS.* **33** (s2), 76-82 (2006).

[2] S. FARKAS AND Z. ZIMBORÁS, "ON THE SHARPNESS OF THE ZERO-ENTROPY-DENSITY CONJECTURE", *J. MATH. PHYS.* **46**, 123301 (2005).

[1] V. EISLER AND Z. ZIMBORÁS, "ENTANGLEMENT IN THE XX SPIN CHAIN WITH AN ENERGY CURRENT", *PHYS. REV. A*, **71**, 042318 (2005).

