

Dr. Boris Korsunsky
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<http://funstudentquotes.com>
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HISTORY:

2000-present Physics Instructor, Weston High School, Weston, MA

Teach algebra and calculus-based advanced physics courses, including AP Physics C (Mechanics, E&M); create original curricular materials and assessment methods

2000 Visiting Scientist, Massachusetts Institute of Technology, Cambridge, MA

Conducted research and evaluated the effectiveness of an online physics tutorial software MasteringPhysics (since sold to Pearson Education) <http://masteringphysics.com/>

1999-2000 Research Associate, Education Development Center (Newton, MA)

Developed mathematics problems for an online mathematics tutorial database Problems with a Point

<http://www2.edc.org/MathProblems/>

1998-1999 Physics Teacher, Thayer Academy (Braintree, MA)

1993-1998 Science Teacher, Northfield Mount Hermon School (Northfield, MA)

1986-1992 Science Teacher, Math School No. 57 for the gifted (Moscow, Russia)

1982-1986 Teaching Assistant, Math School No. 57 for the gifted (Moscow, Russia)

SELECTED PUBLICATIONS:

Korsunsky, B. (2014) Physics Back in TIME. *The Physics Teacher*, 52, 140-143.

Korsunsky B., Huckins G. (2011) Physics Thirst? The survey of 9th-grade physics students. *The Physics Teacher*, 49, 171-174.

Korsunsky, B. (2010) “The Errors Were the Result of Errors...”: promoting good writing by bad example. *The Physics Teacher*, 48, 10-11.

Korsunsky, B. (2009) *Trophy Wives Don't Need Advanced Physics: Dubious Words of Wisdom from Physics Students*. Pi Press, New Orleans.

A collection of amusing student quotes – see <http://funstudentquotes.com>

Korsunsky, B., Agar, O. (2008) Physics First? Survey First! *The Physics Teacher*, 45, 521-524.

- Korsunsky, B. (2006) Teaching to the test: some SSS-based TTTT. *The Physics Teacher*, 44, 434-438.
- Korsunsky, B. (2004) Ready, SET, Go! A research-based approach to problem solving. *The Physics Teacher*, 42, 493-497.
- Korsunsky, B., Love, J., Brown L., Brehmer, S., Lemley, M. (2004) *The Best Test Preparation For The AP Physics B & C*. Research & Education Assn.
- Korsunsky, B. (2001-present) Physics Challenges for Teachers and Students (a monthly column of challenging problems created by the author/editor). *The Physics Teacher*.
- Korsunsky, B. (2002) Improper use of physics context in math problems: the implications for learning and teaching. *School Science and Mathematics*, 102, 3, 107-113.
- Korsunsky, B. (1999). When things fall apart. *Quantum*, 9, 5, 4-8.
- Korsunsky, B. (1997). Fair and squared! *Quantum*, 7, 5, 53-56.
- Korsunsky, B. (1997). *Holt Physics Problem Workbook*. Austin etc.: Holt, Rinehart & Winston.
A collection of original problems based on the facts from the Guinness Book of Records.
- Korsunsky, B. (1995). *Important components of learning components*. *Quantum*, 5, 3, 45-48.
- Korsunsky, B. (1995). Braintwisters for physics students. *The Physics Teacher*, 33, 550-553.
- Korsunsky, B. (1995). *Instructor's Solutions Manual for Challenging Problems for Physics*. Fort Worth etc.: Saunders College Publishing.
- Korsunsky, B. (1995). *Challenging Problems for Physics*. Fort Worth etc.: Saunders College Publishing. A collection of unusual, competition-style physics problems to challenge both high-school and college students.

CONSULTING EXPERIENCE:

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|----------------|---|
| 2013-present | Appointed and trained as College Board Faculty Consultant: conduct workshops for AP Physics teachers |
| 2005 – present | Serve as a Reader (grader) of AP Examinations in Physics |
| 2006 – present | Developed test items and teacher training materials for the AP Physics program |

- 2013 Reviewed various aspects of Edge, the online-course-authoring platform at edX: <https://studio.edge.edx.org/>
- 2012 Wrote and coded physics content for MIT RELATE online Mechanics course, currently available at <http://relate.mit.edu/physicscourse>
- 2011 Wrote and coded physics content for LON-CAPA online database (MIT, Cambridge, MA)
- 1996 – present Wrote test items for graduate-school admission test (Contractor: ACT, AIR; name of test confidential)
- 2001 – present Wrote test items for standardized state exams (Harcourt Educational Measurement; Pearson; ETS K-12; ACT, AIR)
- 2005 – 2007 Consulted on development of qualifying exam for the new physics teachers: content development, standards alignment (American Board for Certification of Teaching Excellence)
- 2004 Taught mathematics and data analysis at the High Achievers Program (Hong Kong International School, Hong Kong)
- 2000-2005 Developed the content and helped design the structure for an online physics tutorial software MasteringPhysics <http://masteringphysics.com/> (Effective Educational Technologies, Cambridge, MA)
- 1998 – present Conducted workshops on science education for high school teachers (US, Singapore, Thailand)
- 1996 – 1997 Coached the US Physics Team: created original challenging problems, ran the activities at the training camp, assessed the team members' performance, helped made the final selection of the team
- 1994 – 1997 Wrote several hundred original EOC problems for *Physics for Scientists and Engineers* by R. Serway (4th edition) and for *Physics for Scientists and Engineers* by P. Tipler (3rd edition)

EDUCATION:

Ed. D. (2003) Harvard Graduate School of Education, Cambridge, Mass. Focus: Learning and Teaching. Dissertation topic: Cognitive Mechanisms of Solving Non-Trivial Physics Problems.

Designed and conducted the original study of problem solving approaches used by Advanced Placement Physics C students in several high schools across the US. The study included both online data collection and interviews and involved more than 100 students. Both qualitative and quantitative methods of data analysis were used. Full text of the dissertation is available online at

http://www.weston.org/schools/hs/sci/apphy/korsunsky/Dissertation-pdf/table_of_contents.htm

M. S. (1992) (major: Physics/Physics Education) Moscow Open Pedagogical University, Moscow, Russia

M. S. (1988) (major: Physical Chemistry/Physics) Moscow Institute of Steel and Alloys, Moscow, Russia

HONORS AND AWARDS:

1990 – 1992 Taught a member of Russian Physics Team

1993 – 1995 Taught a member of the US Physics Team

1996 - 1997 Coach, US Physics Team (sponsored by AAPT and AIP)

1999 Larsen Entering Award (Harvard Graduate School of Education, Cambridge, MA)

2002 Fulbright Memorial Fund Scholarship (Japan)

2006 US Teacher Representative, International Summer School for Young Physicists (University of Waterloo, Canada, sponsored by AAPT)

2011 Winner, Amgen Award for Excellence in Science Teaching

http://www.amgen.com/citizenship/recent_winners_winners_ma.html

LANGUAGES: English (near-native); Russian (native)

REFERENCES: Available upon request