CURRICULUM VITAE
Bărboianu Doru Cătălin, BA, MSc, PhD student

Name: Bărboianu Doru Cătălin
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EDUCATION

- PhD student at University of Bucharest, Department of Philosophy - Philosophy of Science, the terminal year, with a doctoral thesis in the field of epistemology of mathematical modeling and the philosophical problems of the applicability of mathematics in sciences. The title of the doctoral thesis is *The Structural Alternatives and Metatheoretical Aspects of the Resolving of the Problem of Applicability of Mathematics in Sciences*, under the coordination of Professor Ilie Pârvu.
- MSc in Probability & Mathematical Statistics, from University of Bucharest, Mathematics Department, September 1992.
- BA in Pure Mathematics, from University of Bucharest, Mathematics Department, with emphasis on Probability & Mathematical Statistics, University of Bucharest, attended between 1987 – 1991;
- "Fraţii Buzeşti" High School, Mathematics & Physics profile, Craiova, attended between 1982 – 1986.

PROFESSIONAL EXPERIENCE AT LARGE

- Independent researcher in Applied Mathematics, Problem Gambling and Philosophy of Science
- Editor-in-chief of the website http://probability.infarom.ro , dedicated to probability theory and its applications 2006 – 2017.
- Consultant on the mathematical aspects of the games for various gaming companies and individuals, on a freelance basis, 2004 – 2013.
- Leader of a private research group in Applied Mathematics, reviewer and editor at Infarom Publishing Company, Division of Applied Mathematics, 2001 – at present.
- Mathematics instructor at secondary schools in Bucharest and Craiova between 1991 - 1996.

MEMBERSHIPS

MAA (*Mathematical Association of America*), 2007 - 2012.
SIAM (*Society for Industrial and Applied Mathematics*), since 2005.
BSPS (*British Society for the Philosophy of Science*), 2010 - 2016.
RASG (*Romanian Association for the Study of Gambling*), since 2013

RESEARCH INTERESTS

Mathematics
Applied Mathematics – Probability & Statistics – Gaming mathematics
Probability & Statistics – Interpretations of probability
Mathematical Modeling
Topology

Philosophy
Epistemology
Philosophy of mathematics – Applicability of Mathematics, Epistemology of Mathematics, Foundations of Mathematics
Philosophy of language – Formal semantics, Wittgenstein, Language and thought
Philosophy of mind

Problem Gambling
Cognitive therapies - Contribution of mathematics and philosophy of mathematics in problem gambling prevention and treatment

My orientation is interdisciplinary and I strongly believe in interdiciplinarity as a methodological necessity of the approach of the sensible and/or unsolved issues of the research, especially in analytical philosophy.

PUBLICATIONS

Books (published in English, Spanish, and Romanian; forthcoming in French):
The Mathematics of Slots: Configurations, Combinations, Probabilities (2013), ISBN 9789731991405
Texas Hold'em Odds for Your Strategy, with Probability-Based Hand Analyses (2011), ISBN 9789731991344
The Mathematics of Lottery: Odds, Combinations, Systems (2009), ISBN 9789731991115
Mathematics Problems with Separate Progressive Solutions: Hints, Algorithms, Proofs. Volume 1 - Intermediate and College Algebra (2008) (co-author), ISBN 9789738866294
Roulette Odds and Profits: The Mathematics of Complex Bets (2007), ISBN 9789738752078
Draw Poker Odds: The Mathematics of Classical Poker (2007), ISBN 9789738752054
Probability Guide to Gambling: The Mathematics of Dice, Slots, Roulette, Baccarat, Blackjack, Poker, Lottery, and Sport Bets (2006), ISBN 9789738752030
Understanding and Calculating the Odds: Probability Theory Basics and Calculus Guide for Beginners, with Applications in Games of Chance and Everyday Life (2006), ISBN 9789738752016
Texas Hold'em Odds (2004), ISBN 9730036896
Most of these books are listed in the official bibliography of the students of *Institute for the Study of Gambling*, *University of Nevada*.

Peer-reviewed articles:
- 2017. *Wigner's Puzzle on Applicability of Mathematics: On what Table to Assemble It?* Journal for General Philosophy of Science, accepted, forthcoming.
- 2016. *The Current Epistemic Status of the Indispensability Arguments in the Philosophy of Science*. Analele Universității din Craiova – Seria Filosofie, 36(2): 108-132.

- 2015. *Mathematical Models of Games of Chance: Epistemological Taxonomy and Potential in Problem-Gambling Research.* UNLV Gaming Research & Review Journal, 19(1).
- 2015. *The "Unreasonable" Effectiveness of Mathematics: The Foundational Approach of Theoretical Alternatives*. Revista de Filosofie, 62(1): 58-71
- 2014. *Circularities in the Contemporary Philosophical Accounts of the Applicability of Mathematics in the Physical Universe*. Revista de Filosofie, 61(5): 517-542.
- 2014. *Is the secrecy of the parametric configuration of slot machines rationally justified? The exposure of the mathematical facts of games of chance as an ethical obligation.* Journal of Gambling Issues, Vol.29: 1-23.
- 2013. *Mathematician's call for interdisciplinary research effort*. International Gambling Studies 13(3): 430-433.
- 2013. *The mathematical facts of games of chance between exposure, teaching, and contribution to cognitive therapies: principles of an optimal mathematical intervention for responsible gambling*. Romanian Journal of Experimental Applied Psychology, 4(3): 25-40.
- 2013. *Revealing Slots Secrets: Generating a PAR Sheet Through Statistical Methods*. Slot tech, May 2013: 4-10.
- 2011. *Problem 11589: Where are the zeros?* The American Mathematical Monthly, 118(7): 653.
- 2008. *Problem 11402: Square on a Graph*. The American Mathematical Monthly. 115(10): 949.
- Various proposed mathematics problems in Gazeta Matematică, between 1983 – 1993.

Several other applied mathematics-related articles in technical and non-peer reviewed publications.