

From Exam to Education: The Math Exam/Education Resources

Authors:

Carmen Bruni
CEMC
University of Waterloo
Waterloo, Ontario, Canada N2L 3G1
cbruni@uwaterloo.ca

Christina Koch
University of Wisconsin-Madison
Madison, WI 53706, United States
koch.christinal@gmail.com

Bernhard Konrad
Department of Mathematics
The University of British Columbia
Vancouver, BC V6T 1Z2, Canada
bernhard.konrad@gmail.com

Michael Lindstrom
Department of Mathematics
University of California, Los Angeles
LA, CA, 90095, USA
mikel@math.ucla.edu

Iain Moyles (Corresponding Author)
Department of Mathematics and Statistics
The University of Limerick
Limerick, Ireland
iain.moyles@ul.ie
+353 061 23 3726

Will Thompson
NMI Gaming and Metrology
Burnaby, BC V5C 0E4, Canada
wft@math.ubc.ca

Keywords: educational learning resource, exam database, MediaWiki, online learning, wiki

Acknowledgements: We are thankful for the support received from a Flexible Learning Teaching and Learning Enhancement Fund (FL-TLEF) which funded the study for which we were able to share preliminary results. We thank Jiao Ji for primarily designing and conducting the research study from the FL-TLEF grant and for providing preliminary results for the use in this publication. We thank Wes Maciejewski for motivating us to share our story and to Will Engle, Cindy Underhill, Scott McMillan, Ido Roll, Warren Code, and the staff at the Centre for Teaching, Learning, and Technology for taking the time to meet with us, approving our extension requests, making the usage data available, supporting us to seek support and apply for grants, and for the constant general encouragement to push this project forward.

We would like to acknowledge Patrick Jones for his permission to include his videos on our site. We would also like to thank all the wiki contributors throughout the years for their hard work in writing and reviewing templates and mathematical content, in particular, our co-founder David Kohler. We are also grateful for the UBC Math graduate committee for subsidizing pizza and sushi at some of our work sessions.

Biographical Sketches:

Carmen Bruni received his Ph.D. in mathematics from the University of British Columbia. He is currently a lecturer for the Centre for Education in Mathematics and Computing (CEMC) at the University of Waterloo.

Christina Koch received her Masters of Science in Mathematics at the University of British Columbia in 2013. She is currently a Research Computing Facilitator at the University of Wisconsin-Madison

Bernhard Konrad received his PhD in Applied Mathematics at the University of British Columbia. He is currently a software engineer at Google.

Michael Lindstrom received his PhD in Applied Mathematics at the University of British Columbia. Currently, Michael is an Assistant Adjunct Professor at UCLA for the Program in Computing.

Iain Moyles received his PhD in Applied Mathematics from the University of British Columbia. He is currently a post-doctoral fellow in applied mathematics at the University of Limerick.

Will Thompson received his PhD in Applied Mathematics from the University of British Columbia. He is currently a mathematician at NMI Gaming and Metrology.