

1. Record Nr.	UNINA9910337755103321
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Titolo	Interdisciplinary Mathematics Education : The State of the Art and Beyond // edited by Brian Doig, Julian Williams, David Swanson, Rita Borromeo Ferri, Pat Drake
Pubbl/distr/stampa	2019 Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	9783030110666 3030110664
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (VII, 302 p. 56 illus., 41 illus. in color.)
Collana	ICME-13 Monographs, , 2520-8330
Classificazione	EDU029010EDU034000EDU043000EDU046000SCI063000
Disciplina	370 510.71
Soggetti	Mathematics - Study and teaching Science - Study and teaching Education and state International education Comparative education Teachers - Training of Mathematics Education Science Education Educational Policy and Politics International and Comparative Education Teaching and Teacher Education
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction.-SECTION 1: CONCEPTUAL FRAMEWORKS -- Introduction -- Theoretical Perspectives on Interdisciplinary Mathematics -- Interdisciplinary Collaboration Between Musicians and Mathematicians: An Experience with Stochastic Music -- Challenges and Opportunities STEM Interdisciplinary Agenda -- SECTION 2: FOCUS ON CROSS-CUTTING SKILLS -- Introduction -- Using Scientific Hypothesis in Interdisciplinary Maths Activities -- Quantitative Reasoning and its Role

in Interdisciplinarity from a Mathematical Perspective -- Modelling and Programming of Digital Video: A Source for the Integration of Mathematics, Engineering, and Technology -- SECTION 3: CASE STUDIES OF INTERDISCIPLINARITY IN PRACTICE -- Introduction -- Mathematics in an Interdisciplinary STEM Course (NLT) -- “Maths add up”: Interdisciplinary Maths Activities -- The Successful Students STEM project: A Medium Scale Case of Teacher Development -- “Draw What You See”: Transcending The Mathematics Classroom -- Interdisciplinarity: Old wine in new bottles? -- SECTION 4: TEACHER EDUCATION AND TEACHER DEVELOPMENT -- Introduction -- Inclusion of Interdisciplinary Approach in Biology Teacher Trainees Mathematics Education in Slovakia -- Preparing STEM Teachers as Researchers: A Research Experiences for Undergraduates Project -- SECTION 5: CONCLUSION.-IdME – a Conclusion.

Sommario/riassunto

This open access book is the first major publication on the topic of “Interdisciplinary Mathematics Education” and arose from the work of the first International Topic Study Group of the same name at the ICME-13 conference in Hamburg in 2016. It offers extensive theoretical insights, empirical research, and practitioner accounts of interdisciplinary mathematics work in STEM and beyond (e.g. in music and the arts). Scholars and practitioners from four continents contributed to this comprehensive book, and present studies on: the conceptualizations of interdisciplinarity; implementation cases at schools and tertiary institutions; teacher education; and implications for policy and practice. Each chapter, and the book itself, closes with an assessment of the most significant aspects that those involved in policy and practice, as well as future researchers, should take into account. .
