

1. Record Nr.	UNINA9910485600003321
Titolo	Handbook of the Mathematics of the Arts and Sciences / / edited by Bharath Sriraman
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-319-70658-6
Descrizione fisica	1 online resource (50 illus., 40 illus. in color.)
Disciplina	519
Soggetti	Mathematics Social sciences Mathematics in Art and Architecture Mathematics in Music Mathematics in the Humanities and Social Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- On the Origins and Directions of Interdisciplinary connections -- Mathematics and Architecture -- Mathematics, Biology and Dynamical systems -- Mathematics, Cosmology and Navigation -- Pure Mathematics and its Connections to Arts and Sciences -- Mathematics, Geometry, and Art -- Mathematics and Society -- Mathematics and Aesthetics.
Sommario/riassunto	The goal of this Handbook is to become an authoritative source with chapters that show the origins, unification, and points of similarity between different disciplines and mathematics. Some chapters will also show bifurcations and the development of disciplines which grow to take on a life of their own. Science and Art are used as umbrella terms to encompass the physical, natural and geological sciences, as well as the visual and performing arts. As arts imagine possibilities, science attempts to generate models to test possibilities, mathematics serves as the tool. This handbook is an indispensable collection to understand todays effort to build bridges between disciplines. It answers questions such as: What are the origins of interdisciplinarity in mathematics? What are cross-cultural components of interdisciplinarity linked to

mathematics? What are contemporary interdisciplinary trends? Section Editors: Michael J. Ostwald, University of Newcastle (Australia) Kyeong-Hwa Lee, Seoul National University (South Korea) Torsten Lindström, Linnaeus University (Sweden) Gizem Karaali, Pomona College (USA) Ken Valente, Colgate University, (USA) Consulting Editors: Alexandre Borovik, Manchester University (UK) Daina Taimina, Independent Scholar, Cornell University (USA) Nathalie Sinclair, Simon Fraser University (Canada).

---