

1. Record Nr.	UNINA9911106896003321
Autore	Martin Carla D
Titolo	Keeping it R.E.A.L : research experiences for all learners // Carla D. Martin, Anthony Tongen
Pubbl/distr/stampa	Washington, D.C., : Mathematical Association of America, 2011
ISBN	0-88385-961-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (0 p.)
Collana	Classroom resource materials
Altri autori (Persone)	TongenAnthony
Disciplina	510.71
Soggetti	Critical thinking Mathematics - Research Mathematics Mathematics - Study and teaching (Higher) Computation laboratories Project method in teaching
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	cover ; copyright page ; Untitled; Acknowledgments; Contents; Introduction and Motivation; Introduction; Motivation; Implementation; Grading; Organization; Computer Exploration of Mathematical Concepts; A Prime Project; A Golden Prime Project; A Rather Normal Project; Collatz Collapse; Fractions of Fractions; Diffusion by Chance; Random Investing; Infinite Digits with Finite Storage; Follow the Rules!; Chaotic Rabbits; Smoothing Out Tangles; Shortening Voices Everywhere; Student Poster Example; Numerical Algorithms; Bit by Bit; Getting to the Root of the Problem; Things that Periodically Fit Going with the FlowSupercaliFRACTAListic!; Chain Reactions; The World's Largest Linear Algebra Problem; Shifting the Way We Think About Linear Algebra; Facing Reality with Eigenfaces; Matrix Surgery: Operating on Matrices; Student Poster Example; Advanced Numerical Analysis; Matrices of Matrices; Wrapping Around Matrices; Getting Smaller; Improved Hearing; You Match I Match; Seeing More Clearly; Eigenvalue Computing Side-by-Side; Delayed Understanding; Student Poster Example; Bibliography; Index; About the Authors
Sommario/riassunto	A collection of computational classroom projects carefully designed to

inspire critical thinking and mathematical inquiry. This book also contains background subject information for each project, grading rubrics, and directions for further research. Instructors can use these materials inside or outside the classroom to inspire creativity and encourage undergraduate research. R.E.A.L. projects are suitable for a wide-range of college students, from those with minimal computational exposure and precalculus background to upper-level students in a numerical analysis course. Each project is class tested, and most were presented as posters at regional conferences.--Page [4] of cover.

2. Record Nr.	UNINA9910741379703321
Autore	Vladareanu Luige
Titolo	Advanced Intelligent Control in Robots
Pubbl/distr/stampa	Basel, : MDPI - Multidisciplinary Digital Publishing Institute, 2023
Descrizione fisica	1 online resource
Soggetti	Information technology industries Computer science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Advanced intelligent control is a rapidly developing, complex and challenging field with significant practical importance and potential applications. The authors aim to stimulate advancements in science and technology by addressing this field and presenting new trends in the design, control and applications of real-time intelligent sensor system control using advanced intelligent control methods and techniques. The purpose of the Special Issue is to promote in-depth research and communication regarding these topics. The authors focus on innovative multi-sensor fusion techniques integrated into robots, which are combined with computer vision, virtual and augmented reality (VR&AR) and intelligent communication including remote

control, adaptive sensor networks and human-robot (H2R) interaction systems. Special attention is given to advancements in sensors, actuators, computation technology and communication networks that provide the necessary tools for implementing intelligent control hardware. These advancements are targeted toward various scientific research fields, including machine learning (such as deep learning), bio-inspired algorithms, recurrent neural networks, neuro-fuzzy control and artificial intelligence in general. The Special Issue includes original research papers that report on the recent advancements in intelligent control using intelligent sensors. It serves as a further extension of the previously successful Special Issue, "Advanced Intelligent Control through Versatile Intelligent Portable Platforms".

3. Record Nr.	UNINA9911139993403321
Autore	Paterson Craig <1965->
Titolo	Assisted suicide and euthanasia : a natural law ethics approach / / Craig Paterson
Pubbl/distr/stampa	Aldershot, England ; ; Burlington, VT, : Ashgate, c2008
ISBN	1-351-57508-2 1-315-09676-5 1-351-57507-4 1-281-33275-5 0-7546-5746-9 9786611332754 0-7546-9295-7 9781315096766
Edizione	[First edition.]
Descrizione fisica	217 p. ; ; 24cm
Collana	Live questions in ethics and moral philosophy
Disciplina	179.7
Soggetti	Assisted suicide - Moral and ethical aspects Euthanasia - Moral and ethical aspects Medical ethics Euthanasia Natural law
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. [185]-209) and index.
Nota di contenuto	Introduction -- Justifications for suicide, assisted suicide and euthanasia -- A revised natural law ethics -- The good of human life -- Suicide, assisted suicide and voluntary euthanasia -- Non-voluntary and involuntary euthanasia -- State intervention and the common good.
Sommario/riassunto	"As medical technology advances and severely injured or ill people can be kept alive and functioning long beyond what was previously medically possible, the debate surrounding the ethics of end-of-life care and quality-of-life issues has grown more urgent. In this lucid and vigorous new book, Craig Paterson discusses assisted suicide and euthanasia from a fully fledged but non-dogmatic secular natural law perspective. He rehabilitates and revitalises the natural law approach to moral reasoning by developing a pluralistic account of just why we are required by practical rationality to respect and not violate key demands generated by the primary goods of persons, especially human life. Important issues that shape the moral quality of an action are explained and analysed: intention/foresight; action/omission; action/consequences; killing/letting die; innocence/non-innocence; and, person/non-person. Paterson defends the central normative proposition that 'it is always a serious moral wrong to intentionally kill an innocent human person, whether self or another, notwithstanding any further appeal to consequences or motive'."--Provided by publisher.

4. Record Nr.	UNINA9911139748803321
Autore	Dym Clive L
Titolo	Principles of mathematical modeling
Pubbl/distr/stampa	Amsterdam ; ; Boston, : Elsevier Academic Press, c2004
ISBN	9786610961320 9781280961328 1280961325 9780080470283 0080470289
Edizione	[2nd ed. /]
Descrizione fisica	1 online resource (323 p.)
Disciplina	511/.8
Soggetti	Mathematical models
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contents; Preface; Acknowledgments; Part A: Foundations; 1 What is Mathematical Modeling?; 1.1 Why do we do mathematical modeling?; 1.2 Principles of mathematical modeling; 1.3 Some methods of methematical modeling; 1.4 Summary; 1.5 References; 2 Dimensional Analysis; 2.1 Dimensions and units; 2.2 Dimensional homogeneity; 2.3 Why do we do dimensional analysis?; 2.4 How do we do dimensional analysis?; 2.5 Systems of units; 2.6 Summary; 2.7 References; 2.8 Problems; 3 Scale; 3.1 Abstraction and scale; 3.2 Size and shape: geometric scaling; 3.3 Size and function-I: Birds and flight 3.4 Size and function-II: Hearing and speech3.5 Size and limits: scale in equations; 3.6 Consequences of choosing a scale; 3.7 Summary; 3.8 References; 3.9 Problems; 4 Approximating and Validating MOdels; 4.1 Taylor's formula; 4.2 Algebraic approximations; 4.3 Numerical approximations: significant figures; 4.4 Validating the model-I: How do we know the model is OK?; 4.5 Validating the model-II: How large are the errors?; 4.6 Fitting curves to data; 4.7 Elementary statistics; 4.8 Summary; 4.9 Appendix: Elementary transcendental functions; 4.10 References; 4.11 Problems; Part B: Applications 5 Exponential Growth and Decay5.1 How do things get so out of hand?; 5.2 Exponential functions and their differential equations; 5.3

Radioactive decay; 5.4 Charging and discharging a capacitor; 5.5 Exponential models in money matters; 5.6 A nonlinear model of population growth; 5.7 A coupled model of fighting armies; 5.8 Summary; 5.9 References; 5.10 Problems; 6 Traffic Flow Models; 6.1 Can we really make sense of freeway traffic?; 6.2 Macroscopic traffic flow models; 6.3 Microscopic traffic models; 6.4 Summary; 6.5 References; 6.6 Problems; 7 Modeling Free Vibration 7.1 The freely-vibrating pendulum-I: Formulating a model 7.2 The freely-vibrating pendulum-II: The linear model; 7.3 The spring-mass oscillator-I: Physical interpretations; 7.4 Stability of a two-mass pendulum; 7.5 The freely vibrating pendulum-III: The nonlinear model; 7.6 Modeling the popular growth of coupled species; 7.7 Summary; 7.8 References; 7.9 Problems; 8 Applying Vibration Models; 8.1 The spring-mass oscillator-II: Extensions and analogies; 8.2 The fundamental period of a tall, slender building; 8.3 The cyclotron frequency; 8.4 The fundamental frequency of an acoustic resonator 8.5 Forcing vibration: modeling an automobile suspension 8.6 The differential equation $m d^2x/dt^2 + kx = F(t)$; 8.7 Resonance and impedance in forced vibration; 8.8 Summary; 8.9 References; 8.10 Problems; 9 Optimization: What Is the Best...?; 9.1 Continuous optimization modelling; 9.2 Optimization with linear programming; 9.3 The transportation problem; 9.4 Choosing the best alternative; 9.5 A miscellany of optimization problems; 9.6 Summary; 9.7 References; 9.8 Problems; Index

Sommario/riassunto

Science and engineering students depend heavily on concepts of mathematical modeling. In an age where almost everything is done on a computer, author Clive Dym believes that students need to understand and "own" the underlying mathematics that computers are doing on their behalf. His goal for *Principles of Mathematical Modeling, Second Edition*, is to engage the student reader in developing a foundational understanding of the subject that will serve them well into their careers. The first half of the book begins with a clearly defined set of modeling principles, and then intro
