

1. Record Nr.	UNINA9910785993003321
Autore	Kowalik Janusz S
Titolo	Using OpenCL [[electronic resource]] : programming massively parallel computers / / Janusz Kowalik and Tadeusz Puzniakowski
Pubbl/distr/stampa	Amsterdam, : IOS Press, c2012
ISBN	1-299-33347-8 1-61499-030-1
Descrizione fisica	1 online resource (312 p.)
Collana	Advances in parallel computing ; ; v. 21
Altri autori (Persone)	PuzniakowskiTadeusz
Disciplina	005.2752
Soggetti	OpenCL (Computer program language) Parallel computers Parallel programming (Computer science)
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	Title Page; Preface; Contents; Introduction; Existing Standard Parallel Programming Systems; MPI; OpenMP; Two Parallelization Strategies: Data Parallelism and Task Parallelism; Data Parallelism; Task Parallelism; Example; History and Goals of OpenCL; Origins of Using GPU in General Purpose Computing; Short History of OpenCL; Heterogeneous Computer Memories and Data Transfer; Heterogeneous Computer Memories; Data Transfer; The Fourth Generation CUDA; Host Code; Phase a. Initialization and Creating Context; Phase b. Kernel Creation, Compilation and Preparations for Kernel Execution Phase c. Creating Command Queues and Kernel ExecutionFinalization and Releasing Resource; Applications of Heterogeneous Computing; Accelerating Scientific/Engineering Applications; Conjugate Gradient Method; Jacobi Method; Power Method; Monte Carlo Methods; Conclusions; Benchmarking CGM; Introduction; Additional CGM Description; Heterogeneous Machine; Algorithm Implementation and Timing Results; Conclusions; OpenCL Fundamentals; OpenCL Overview; What is OpenCL; CPU + Accelerators; Massive Parallelism Idea; Work Items and Workgroups; OpenCL Execution Model; OpenCL Memory Structure OpenCL C Language for Programming KernelsQueues, Events and Context; Host Program and Kernel; Data Parallelism in OpenCL; Task

Parallelism in OpenCL; How to Start Using OpenCL; Header Files; Libraries; Compilation; Platforms and Devices; OpenCL Platform Properties; Devices Provided by Platform; OpenCL Platforms - C++; OpenCL Context to Manage Devices; Different Types of Devices; CPU Device Type; GPU Device Type; Accelerator; Different Device Types - Summary; Context Initialization - by Device Type; Context Initialization - Selecting Particular Device; Getting Information about Context OpenCL Context to Manage Devices - C++Error Handling; Checking Error Codes; Using Exceptions - Available in C++; Using Custom Error Messages; Command Queues; In-order Command Queue; Out-of-order Command Queue; Command Queue Control; Profiling Basics; Profiling Using Events - C example; Profiling Using Events - C++ example; Work-Items and Work-Groups; Information About Index Space from a Kernel; NDRange Kernel Execution; Task Execution; Using Work Offset; OpenCL Memory; Different Memory Regions - the Kernel Perspective; Relaxed Memory Consistency Global and Constant Memory Allocation - Host CodeMemory Transfers - the Host Code; Programming and Calling Kernel; Loading and Compilation of an OpenCL Program; Kernel Invocation and Arguments; Kernel Declaration; Supported Scalar Data Types; Vector Data Types and Common Functions; Synchronization Functions; Counting Parallel Sum; Parallel Sum - Kernel; Parallel Sum - Host Program; Structure of the OpenCL Host Program; Initialization; Preparation of OpenCL Programs; Using Binary OpenCL Programs; Computation; Release of Resources; Structure of OpenCL host Programs in C++; Initialization Preparation of OpenCL Programs

2. Record Nr.	UNINA9910797133103321
Autore	Geiser Ken
Titolo	Chemicals without harm : policies for a sustainable world / / Ken Geiser
Pubbl/distr/stampa	Cambridge, Massachusetts ; ; London, England : , : The MIT Press, , [2015] ©2015
ISBN	0-262-32702-3 0-262-32701-5
Descrizione fisica	1 online resource (457 p.)
Collana	Urban and industrial environments
Disciplina	660
Soggetti	Green chemistry Chemicals - Safety measures Chemical industry - Waste minimization
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; 1 The Problem with Chemicals; I Chemical Control Policies; 2 Regulating Hazardous Chemicals; 3 Reassessing Chemical Control Policies; II Reframing Chemical Policies; 4 Considering New Initiatives; 5 Reframing the Chemicals Problem; 6 Understanding the Chemical Economy; III A Chemical Conversion Strategy; 7 Driving the Chemical Market; 8 Transforming the Chemical Industry; 9 Designing Greener Chemistry; IV Safer Chemical Policies; 10 Characterizing and Prioritizing Chemicals; 11 Generating Chemical Information; 12 Substituting Safer Chemicals 13 Developing Safer Alternatives 14 Drafting Safer Chemical Policies; V Chemicals without Harm; 15 Reconstructing Government Capacity; 16 Solving the Chemicals Problem; Notes; Bibliography; Index
Sommario/riassunto	Today, there are thousands of synthetic chemicals used to make our clothing, cosmetics, household products, electronic devices, even our children's toys. Many of these chemicals help us live longer and more comfortable lives, but some of these highly useful chemicals are also persistent, toxic, and dangerous to our health and the environment. For fifty years, the conventional approach to hazardous chemicals has focused on regulation, barriers, and protection. In Chemicals without

Harm, Ken Geiser proposes a different strategy, based on developing and adopting safer alternatives to hazardous chemicals rather than focusing exclusively on controlling them.

3. Record Nr.	UNINA9910337744103321
Titolo	Topics and Trends in Current Statistics Education Research : International Perspectives // edited by Gail Burrill, Dani Ben-Zvi
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	9783030034726 3030034720
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XVII, 422 p. 137 illus., 96 illus. in color.)
Collana	ICME-13 Monographs, , 2520-8330
Disciplina	370
Soggetti	Mathematics - Study and teaching Social sciences - Statistical methods Teachers - Training of Learning, Psychology of Educational technology Mathematics Education Statistics in Social Sciences, Humanities, Law, Education, Behavioral Sciences, Public Policy Teaching and Teacher Education Instructional Psychology Digital Education and Educational Technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction (Gail and Dani) -- Part I: Student Understanding -- Chapter 1. Visualizing Chance: Tackling Conditional Probability Misconceptions (Budgett, Stephanie) -- Chapter 2. Students' Development of Measures (Büscher, Christian) -- Chapter 3. Students' Reasoning about Variation in Risk Context (Orta Amaro, José Antonio) -- Chapter 4. Students' Aggregate Reasoning with Covariation (Aridor,

Keren) -- Part II: Teaching for Understanding -- Chapter 5. Design for Reasoning with Uncertainty in Informal Statistical Inference (Manor Braham, Hana) -- Chapter 6. The Role of Technology in Building Conceptual Images of Fundamental Concepts in Statistics (Burrill, Gail) -- Chapter 7. Informal Inferential Reasoning and the Social. How an Inferentialist Epistemology can Contribute to Understanding Students' Informal Inferences (Schindler, Maike) -- Chapter 8. Posing Comparative Investigative Questions (Arnold, Pip) -- Part III: Teachers' Knowledge (preservice and inservice) -- Chapter 9. The Growing Samples Heuristic: Exploring Pre-service Teachers' Reasoning about Informal Statistical Inference when Generalizing from Samples of increasing Size (De Vetten, Arjen) -- Chapter 10. Teachers' Statistical Knowledge: The Case of Variability (Vermette, Sylvain) -- Chapter 11. Secondary Teachers' Learning: Measures of Variation (Peters, Susan A.) -- Chapter 12. Exploring Secondary Teacher Statistical Learning: Professional Learning in a Blended Format Statistics and Modeling Course (Madden, Sandra Renee) -- Chapter 13. Statistical reasoning of preservice teachers when comparing groups with TinkerPlots (Frischemeier, Daniel) -- Part IV: Teachers' Beliefs -- Chapter 14. Teachers' Perspectives on Tasks and Technology to Promote Statistical Reasoning (Henriques, Ana) -- Chapter 15. A Study of Indonesian Pre-service English as a Foreign Language Teachers Values on Learning Statistics (Idris, Khairiani) -- Part V: Curriculum -- Chapter 16. A MOOC for Adult Learners of Mathematics and Statistics (Pratt, Dave) -- Chapter 17. Critical Citizenship in Colombian Statistics Textbooks (Zapata-Cardona, Lucia) -- Chapter 18. A Case for Critical Statistics Education (Weiland, Travis) -- Chapter 19. Comparing the Statistical Literacy of Students in Different Undergraduate Programs in Terms of Statistical Process (Özmen, Zeynep Medine) -- Index.

Sommario/riassunto

This book focuses on international research in statistics education, providing a solid understanding of the challenges in learning statistics. It presents the teaching and learning of statistics in various contexts, including designed settings for young children, students in formal schooling, tertiary level students, and teacher professional development. The book describes research on what to teach and platforms for delivering content (curriculum), strategies on how to teach for deep understanding, and includes several chapters on developing conceptual understanding (pedagogy and technology), teacher knowledge and beliefs, and the challenges teachers and students face when they solve statistical problems (reasoning and thinking). This new research in the field offers critical insights for college instructors, classroom teachers, curriculum designers, researchers in mathematics and statistics education as well as policy makers and newcomers to the field of statistics education. Statistics has become one of the key areas of study in the modern world of information and big data. The dramatic increase in demand for learning statistics in all disciplines is accompanied by tremendous growth in research in statistics education. Increasingly, countries are teaching more quantitative reasoning and statistics at lower and lower grade levels within mathematics, science and across many content areas. Research has revealed the many challenges in helping learners develop statistical literacy, reasoning, and thinking, and new curricula and technology tools show promise in facilitating the achievement of these desired outcomes.
