1.	Record Nr.	UNISA996418193503316
	Autore	Camiola Vito Dario
	Titolo	Charge Transport in Low Dimensional Semiconductor Structures [[electronic resource]] : The Maximum Entropy Approach / / by Vito Dario Camiola, Giovanni Mascali, Vittorio Romano
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
	ISBN	3-030-35993-X
	Edizione	[1st ed. 2020.]
	Descrizione fisica	1 online resource (XVI, 337 p. 83 illus., 23 illus. in color.)
	Collana	The European Consortium for Mathematics in Industry ; ; 31
	Disciplina	621.3815284
	Soggetti	Mathematical physics Applied mathematics Engineering mathematics Nanotechnology Mathematical Physics Theoretical, Mathematical and Computational Physics Mathematical and Computational Engineering
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Band Structure and Boltzmann Equation -- Maximum Entropy Principle -- Application of MEP to Charge Transport in Semiconductors -- Application of MEP to Silicon -- Some Formal Properties of the Hydrodynamical Model -- Quantum Corrections to the Semiclassical Models -- Mathematical Models for the Double-Gate MOSFET -- Numerical Method and Simulations -- Application of MEP to Charge Transport in Graphene.
	Sommario/riassunto	This book offers, from both a theoretical and a computational perspective, an analysis of macroscopic mathematical models for description of charge transport in electronic devices, in particular in the presence of confining effects, such as in the double gate MOSFET. The models are derived from the semiclassical Boltzmann equation by means of the moment method and are closed by resorting to the maximum entropy principle. In the case of confinement, electrons are treated as waves in the confining direction by solving a one-

dimensional Schrödinger equation obtaining subbands, while the longitudinal transport of subband electrons is described semiclassically. Limiting energy-transport and drift-diffusion models are also obtained by using suitable scaling procedures. An entire chapter in the book is dedicated to a promising new material like graphene. The models appear to be sound and sufficiently accurate for systematic use in computer-aided design simulators for complex electron devices. The book is addressed to applied mathematicians, physicists, and electronic engineers. It is written for graduate or PhD readers but the opening chapter contains a modicum of semiconductor physics, making it self-consistent and useful also for undergraduate students.

2.	Record Nr.	UNIORUON00342381
	Autore	GUILLEMIN, Henri
	Titolo	La liaison Musset-Sand / Henri Guillemin
	Pubbl/distr/stampa	Paris, : Gallimard, c1972
	Descrizione fisica	246 p. ; 21 cm.
	Disciplina	844
	Soggetti	MUSSET ALFRED DE
	Lingua di pubblicazione	Francese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia

3. Record Nr.	UNINA9910483239503321
Titolo	Smart Innovations in Engineering and Technology / / edited by Ryszard Klempous, Jan Nikodem
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-32861-9
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (296 pages)
Collana	Topics in Intelligent Engineering and Informatics, , 2193-942X ; ; 15
Disciplina	620.7 620.001171
Soggetti	Computational intelligence Cooperating objects (Computer systems) Computational Intelligence Cyber-Physical Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Foreword -- Preface -- Chapter 1. Center for Advanced Studies in Systems Engineering -- Chapter 2. Fuzzy job scheduling for Testing as a Service platform, etc.
Sommario/riassunto	This easy-to-understand book discusses applications of current technologies and the foundations for their extension into emerging areas in the future. It includes research presented at two conferences: 5th International IBM Cloud Academy Conference, 2017, held in Wrocaw, Poland. 5th AsiaPacific Conference on Computer Assisted and System Engineering, 2017, held in Guilin, China. These conferences focused on system and application engineering, including achievements in the interdisciplinary topics of cloud computing, big data, IoT and mobile communications. Featuring 19 chapters, the book has the potential to influence current and future research and applications combining the best attributes of computing, mathematics, artificial intelligence, biometrics and software engineering to create a comprehensive research application domain.