1. Record Nr. UNINA9910790142603321

Autore	Smith Michael D (Michael David), <1955->
Titolo	Astrophysical jets and beams / / Michael D. Smith, University of Kent, Canterbury [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2012
ISBN	1-107-22557-4 1-280-87761-8 9786613718921 1-139-22220-1 1-139-21739-9 1-139-22391-7 1-139-21431-4 1-139-22048-9 0-511-99456-7
Descrizione fisica	1 online resource (xii, 228 pages) : digital, PDF file(s)
Collana	Cambridge astrophysics ; ; 49
Classificazione	SCI005000
Disciplina	523
Soggetti	Astrophysical jets
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Introduction -- 2. Detection and measurement -- 3. The dynamical toolbox -- 4. Observations of extragalactic jets -- 5. Jets in galactic nuclei -- 6. Jets from young stars and protostars -- 7. Jets associated with evolved stars -- 8. Jets within the solar system -- 9. Jet launching -- 10. Jet propagation -- 11. The astrophysical jet.
Sommario/riassunto	Astrophysical jets are spectacular displays of gas or dust ejected from a range of cosmic bodies; they are seemingly ubiquitous on scales from comets to black holes. This volume reviews our understanding of jet processes and provides a modern guide to their observation and the role they play in many long-standing problems in astrophysics. It covers the major discoveries in gamma-ray bursts, solar and stellar jets and cometary jets. Specific physical processes for all classes of jet are illustrated and discussed in depth, as a backdrop to explaining spectacular jet images. Current jet models raise as many issues as they solve, so the final chapter looks at the new questions to be answered.

	Written at an entry level for postgraduate students, this volume incorporates introductions to all the governing physics, providing a comprehensive and insightful guide to the study of jets for researchers across all branches of astrophysics.

2. Record Nr. UNINA9910299676803321

Autore	Yadav Neha
Titolo	An Introduction to Neural Network Methods for Differential Equations / / by Neha Yadav, Anupam Yadav, Manoj Kumar
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2015
ISBN	94-017-9816-8
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (124 p.)
Collana	SpringerBriefs in Computational Intelligence, , 2625-3712
Disciplina	006.32
Soggetti	Neural networks (Computer science) Differential equations Mathematical physics Engineering mathematics Engineering - Data processing Mathematics - Data processing Mathematical Models of Cognitive Processes and Neural Networks Differential Equations Theoretical, Mathematical and Computational Physics Mathematical and Computational Engineering Applications Computational Mathematics and Numerical Analysis
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	Preface -- Introduction -- 1 Overview of Differential Equations -- 2 History of Neural Networks -- 3 Preliminaries of Neural Networks -- 4 Neural Network Methods for Solving Differential Equations -- Conclusion -- Appendix -- References -- Index.
Sommario/riassunto	This book introduces a variety of neural network methods for solving differential equations arising in science and engineering. The emphasis

is placed on a deep understanding of the neural network techniques, which has been presented in a mostly heuristic and intuitive manner. This approach will enable the reader to understand the working, efficiency and shortcomings of each neural network technique for solving differential equations. The objective of this book is to provide the reader with a sound understanding of the foundations of neural networks, and a comprehensive introduction to neural network methods for solving differential equations together with recent developments in the techniques and their applications. The book comprises four major sections. Section I consists of a brief overview of differential equations and the relevant physical problems arising in science and engineering. Section II illustrates the history of neural networks starting from their beginningsin the 1940s through to the renewed interest of the 1980s. A general introduction to neural networks and learning technologies is presented in Section III. This section also includes the description of the multilayer perceptron and its learning methods. In Section IV, the different neural network methods for solving differential equations are introduced, including discussion of the most recent developments in the field. Advanced students and researchers in mathematics, computer science and various disciplines in science and engineering will find this book a valuable reference source.