

1. Record Nr.	UNINA9910779280003321
Titolo	Exploring fundamental issues in nuclear physics [[electronic resource] ] : nuclear clusters : superheavy, superneutronic, superstrange, of anti-matter : proceedings of the Advances in Nuclear Physics in Our Time, Goa, India, 28 November-2 December 2010 // editor, Debades Bandyopadhyay
Pubbl/distr/stampa	Singapore, : World Scientific Pub. Co., 2012
ISBN	1-280-66955-1 9786613646484 981-4355-76-3
Descrizione fisica	1 online resource (325 p.)
Altri autori (Persone)	BandyopadhyayDebades
Disciplina	539.7
Soggetti	Cluster theory (Nuclear physics) Superheavy elements Antimatter Nuclear physics
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.
Nota di contenuto	CONTENTS; Preface; Photos of the Symposium; Competition between Fusion-Fission and Quasifission in the Reactions with Heavy Ions M. G. Itkis et al.; 1. Introduction; 2. CN-Fission and QF in the Reactions Leading to the Hs Composite Systems; 3. Reactions with an <sup>238</sup> U Target; 4. Conclusions; Acknowledgments; References; Experiments on Superheavy Elements at the GSI SHIP S. Hofmann; 1. Introduction and Status of Experiments; 2. Continuation of SHE Experiments using <sup>248</sup> Cm Targets; 3. Conclusion and Outlook; References New Vistas of the Structure of Neutron-Rich Nuclei - Single Particle States and g-factors. A. V. Ramayya et al. 1. Introduction; 2. Experimental Method; 3. Single Particle States and g-Factors; 4. Octupole Correlations in <sup>143,145</sup> B and <sup>148</sup> Ce; 5. Even Parity Bands of <sup>108,110,112</sup> Ru; Acknowledgments; References; Superheavies: Theoretical Incitements and Predictions V. I. Zagrebaev, A. V. Karpov, I. N. Mishustin and W. Greiner; 1. Motivation; 2. Nucleosynthesis by

Neutron Capture; 3. Summary; References

Soft X-Ray Reflection and Strong and Weak Field Limit Determination in Narrow-Line Seyfert 1 Galaxies Th. Boller1. Introduction; 2. The RGS NLS1 Sample; 3. The Spectral Model; 4. 1H 0707-495; 4.1. RGS relativistic reflection model spectral fitting; 4.2. Comparison with EPIC pn spectral fitting results; 4.3. Additional soft X-ray line emission; 4.4. Model component properties and fitting results; 5. Ark 564; 5.1. RGS relativistic reflection model fitting; 6. Remaining Objects; 7. Summary; Acknowledgments; References

A 100% Renewable Power System for Europe - Let the Weather and Physics Decide! M. Greiner1. Introduction; 2. Seasonal Optimal Mix; 3. Seasonal Storage Needs; 4. Outlook; References; Happy Island L.

McLerran; 1. Quarkyonic Matter; 2. Chiral Symmetry Breaking and the Emergence of Happy Island; 3. Experimental Hints for Happy Island; 4.

Summary; Acknowledgments; References; Signatures of the Strongly Interacting QGP in Relativistic Heavy-Ion Collisions E. L Bratkovskaya, et al.; 1. Introduction; 2. Hadronization in PHSD; 3. Application to Nucleus-Nucleus Collisions; 4. Summary; References

Microscopic Origin of the Shear Relaxation Time in Causal Dissipative Fluid Dynamics G. S. Denicol, H. Niemi, J. Noronha and D. H. Rischke1.

Introduction; 2. Definitions and Power-Counting Scheme; 3. Gradient Expansion; 4. Computing the Relaxation Time from the Poles of  $G_R$ ; 5.

The Role of the Analytical Structure of  $G_R$  (!); 6. Application: The Linearized Boltzmann Equation; 7. Conclusion; References; Production

of Heavy and Superheavy Nuclei in Explosive Processes I. N. Mishustin; Preface; 1. Introduction; 2. Statistical Description of Supernova Matter

3. Nuclear Composition of Supernova Matter

---

### Sommario/riassunto

This book focus on recent advances in nuclear physics and bring together experimentalists and theorists. Topics covered include neutron rich and superheavy nuclei, supernova and r-process nuclei, nuclear symmetry energy and equation of state, neutron stars, FAIR and future Dubna research, other related areas.

---