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Titolo	Critical behavior of non-ideal systems. / / Dmitry Yu. Ivanov
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ISBN	1-282-02143-5 9786612021435 3-527-62398-1 3-527-62399-X
Descrizione fisica	1 online resource (273 p.)
Disciplina	530.474 541
Soggetti	Critical phenomena (Physics) Electronic books.
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	Critical Behavior of Non-Ideal Systems; Foreword to the Russian Edition; Foreword to the English Edition; Contents; Editor's Preface; Introduction; Part I The Statics of Critical Phenomena; 1 Statics of Critical Phenomena in the Nearest Vicinity of the Critical Point: Experimental Manifestation; 1.1 Short History of Critical Phenomena Research; 1.2 Peculiarities of the Experiment in the Nearest Vicinity of the Critical Point; 1.2.1 ""Experimental"" Critical Indices; 1.2.2 Determination of Critical Parameters; 1.2.3 Purity of Matter; 1.2.4 Determination of Critical Density 1.2.5 Determination of Critical Temperature and Pressure1.3 Experiments Near the Critical Point in the Presence of the Gravitational Field; 1.3.1 The Gravitational Effect; 1.3.2 The Coexistence Curve; 1.3.3 Singularity of the Diameter of the Coexistence Curve; 1.3.4 The Critical Isotherm; 1.3.5 Isothermal Compressibility Along the Critical Isochore; 1.3.6 (p - T)-Dependence Along the Critical Isochore; 2 Critical Indices and Amplitudes; 2.1 Phenomenological Model of the Critical Behavior of Nonideal Systems; 2.2 Critical Indices: External Field Effects; 2.2.1 Critical Index

Sommario/riassunto

This comprehensive systematic overview covers the static and dynamic critical phenomena of real, non-ideal fluids in the nearest vicinity of the critical point, offers new approaches and presents research results on the highest level. Including both theoretical and experimental researches, it also deals with the critical opalescence as phenomenon with continuously growing scattering multiplicity upon approaching the critical point.

2. Record Nr. UNINA9910874679703321

Titolo	Compact Objects in the Universe / / edited by Eleftherios Papantonopoulos, Nikolaos Mavromatos
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	3-031-55098-6
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (394 pages)
Disciplina	523.8874
Soggetti	Gravitation General relativity (Physics) Cosmology Gravitational Physics General Relativity
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Exact Black Hole Solutions in Higher Order Scalar Tensor Theories -- Compact Objects in Einstein-scalar-Gauss-Bonnet Theory and Beyond -- Dynamics of Scalarization -- Effective Field Theory Approach to Black Hole Scalarization and its Compatibility with Cosmic Evolution -- Conformal Renormalization and Energy Functionals in Anti de Sitter (AdS) Gravity -- Black Hole Spectroscopy: Quasinormal Modes, Ringdown Stability and the Pseudospectrum -- Huge WKB Method and Quasinormal Modes of String-Theoretical D-Dimensional Black Holes -- Spacetime Geometry of Rotating Boson Stars and KBHsSH -- Seven Years of LIGO-Virgo Science -- Astrophysics of Radio sources: Analysis of 21cm Post-Reionization Signals and Modeling of FRBs as PBHs with Magnetic Fields -- BINGO-ABDUS: A Radiotelescope to Unveil the Dark Sector of the Universe -- Machine Learning Applications in Gravitational Wave Astronomy -- Features in the Inflaton Potential and the Spectrum of Cosmological Perturbations.
Sommario/riassunto	The main objective of this volume is to discuss the physical properties, observational signals and various probes of compact objects in the Universe. These include black holes, neutron stars, and exotic objects studied in alternative theories of gravity. The text is mainly addressed

to postgraduate students and young researchers with the aim of introducing them to these very challenging topics.