GEOMETRIC INTEGRATION THEORY ON SUPERMANIFOLDS
A. S. Ishchenko, Institute of Mathematics, Minsk, Belarus
This volume presents a detailed account of the theory of geometric integration on supermanifolds. It covers linear and non-linear analogues of Cartan’s moving frame method as well as supermanifold analogues of Cartan’s moving frame method. The book also includes a detailed review of the theory of supermanifolds, with a focus on the role of supermanifolds in geometry and physics. It provides a comprehensive overview of the theory of geometric integration on supermanifolds, with a focus on the role of supermanifolds in geometry and physics. It also includes a detailed review of the theory of supermanifolds, with a focus on the role of supermanifolds in geometry and physics.

THEORY OF DIFFERENTIAL EQUATIONS IN CONES
Y. Lakhoshkin, RIT, USA
This volume presents a detailed account of the theory of differential equations in cones. It covers linear and non-linear analogues of Cartan’s moving frame method as well as supermanifold analogues of Cartan’s moving frame method. The book also includes a detailed review of the theory of supermanifolds, with a focus on the role of supermanifolds in geometry and physics. It provides a comprehensive overview of the theory of geometric integration on supermanifolds, with a focus on the role of supermanifolds in geometry and physics. It also includes a detailed review of the theory of supermanifolds, with a focus on the role of supermanifolds in geometry and physics.

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A. T. Fomenko and A. M. Mishchenko, Moscow State University, Russia
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2011       320pp      Hbl  978-1-904868-01-6      £35/$56/

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www.cambridgescientificpublishers.com
Regions of attraction are important not only for mathematics but also for the control of dynamical systems in thermodynamics, electronics, econometrics and biology. Real systems in nature are non-linear, and for a given external input (control) they exhibit one or several equilibrium states. The transfer from a ready state to another steady state is made by changing the value of the control parameters. It is known in engineering applications that large compensation may not be possible by a single change but if the change is made in small steps the transfer can be successful. The mathematical explanation is that small unidirectional changes the system is conducted through the regions of attraction of asymptotically stable steady states to the desired steady state.

S.E. Perez Begliaffe, DFT/UEB, Rio de Janeiro, Brazil, M.Novella, ICRA/CBBP, Rio de Janeiro, Brazil, R.Ruffini, ICRA/CBBP, Pisa, Italy.

The International Conference entitled The Sun, the Stars, the Universe and General Relativity was held in Fortaleza, Brazil in May 2009 to celebrate three major events which occurred in Brazil and have fundamentally influenced scientific knowledge and development throughout the world.

1. The mission at Sobral to observe the Solar Eclipse of May 29, 1919 according to Arthur Eddington, gave the first evidence for the observational detection of light by the gravitational field of the Sun as predicted by Albert Einstein.
2. The discovery of the P. to Cassini-Latteau and Gaspaeo Observatories in Brazil and by Cecil Powell in England heralding the beginning of atomic particle physics.
3. The work on the gravitational collapse by George Gamow and Pius Schucking on the QRF process, connected as the "Cosmio da UCPA".

The proceedings of this conference highlight developments arising from these revolutionary developments leading new space missions from South America, the Agro experiment in Argentina and the observations of gamma rays by binoculars and supermassive black holes by the Very Large Telescope in Chile.

PROCEEDINGS OF XIVTH BRAZILIAN SCHOOL OF COSMOLOGY AND GRAVITATION

M. Novella (ICRA/CEPE, Rio de Janeiro, Brazil and S.E.Perez Bergliaffe (DFT/UEB), Rio de Janeiro, Brazil). This volume comprises the set of lectures presented in the XIVth Brazilian School of Cosmology and Gravitation (BSCG). BSCG 2009 took place at Macapá, a small village in the region that hosts the first large-area 74 km toward the solar system of Rio de Janeiro. Since its first edition, which was published more than 35 years ago, the BSCG has become a well-established tradition among the postgraduate students and researchers in the areas of Gravitation, Cosmology, Astrophysics and Field Theory. Most of the relevant issues in these areas were covered in some edition of the School. An excellent array of this richness and diversity is given by the topics presented in the fourteenth edition, which range from theoretical matters to the latest observational developments, including also philosophical issues of general theory.

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- W.K. Wiltshire: The Milky Way

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A. Weiss, W. Hillebrandt, M.-C. Thomas and H. Ritter, Max-Planck-Institute for Astrophysics, Garching, Germany.

Cao and Gull’s Principles of Stellar Structure has been the reference work for students of the structure of stars for several decades. This new edition has been updated by four specialists in the field who have added content that the most recent improvements relevant for the modelling and understanding of stars. New developments have been added to the original text.

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- Thermodynamic Equations (LTE)
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- Conditions for L

Appendix A: Evaluation of Thomson Scattering and Other Line-Transfer Processes
Appendix B: Non-ideal Gas Effects
Appendix C: Stability of the Radiation Gradient

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S. Fabrika, Special Astrophysical Observatory, Russian Academy of Sciences

The review describes observations and investigations of the unique object 5S43 obtained after 2 years of studying this quasistellar system. The main differences between 5S43 and other known X-ray binaries is the absence of a constant companions and the absence of gas onto the relativistic star (more likely a black hole). This fact led to the formation of a collimated, collimated relativistic jets. The properties of jets are not to a large extent determined by their interaction with the disk wind. The projection of the jets and jets as well as the collimation in the binary system made 5S43 a unique laboratory for studies of mechanisms for the microquasar phase. The author describes the observational results and results emerging from studies of the formation of the jets and supercritical accretion disk in 5S43.

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P. A. Deminikov, St Petersburg State University, Russia

This review presents the results of studies on objects closely related to the problem of abundance anomalies in globular clusters. It covers the problem of deep mixing in globular-cluster red giants and describes a diffusion model and a mechanism for extra mixing in red giants. The volume provides a useful source of reference for graduate students and researchers in astrophysics.

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N.Voshchinnikov, Astronomy Department and Sobolev Astronomical Institute, St Petersburg University, Russia

The optics of small particles is useful in the interpretation of observational phenomena related to extinction, scattering and emission of radiation by dust grains in space. This volume covers three components of dust modeling: Optical constants; Light scattering theories and models. The author shows how the general laws of the optics of dust particles work and highlights the information about cosmic dust. Part II will be dedicated to the consideration of scattering radiation, dust extinction and radiation, radiation pressure and dust properties.

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I. M. Lytvynenko and S. L. Prosvirnov

Institute of Radioelectronics, Kharkov, Ukraine

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proceedings of international conference on topology and its applications (icta 2011)

alexander v. arhangelski, masud din khan, ljudmila d. r. kokinc (eds)

ICTA 2011 was held in july 2011 in Khobar City. The aim of the conference was to review and explore some of the recent achievements in topology and to provide an opportunity for scientific exchange and interaction between scientists who work on different aspects and applications of topology. The conference was held in the city of Khobar City.

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