Record Nr.	UNISA996466681903316
Titolo	Jets in Extragalactic Radio Sources [[electronic resource]]: Proceedings of a Workshop Held at Ringberg Castle, Tegernsee, FRG, September 22–28, 1991 / edited by Hermann-Josef Röser, Klaus Meisenheimer
Pubbl/distr/stampa	Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer,, 1993
ISBN	3-540-47925-2
Edizione	[1st ed. 1993.]
Descrizione fisica	1 online resource (XX, 304 p. 69 illus.)
Collana	Lecture Notes in Physics, , 0075-8450 ; ; 421
Disciplina	520
Soggetti	Observations, Astronomical
	Astronomy—Observations
	Astrophysics
	Geophysics Flomentary particles (Physics)
	Elementary particles (Physics) Quantum field theory
	Atoms
	Physics
	Astronomy, Observations and Techniques
	Astrophysics and Astroparticles
	Geophysics/Geodesy
	Elementary Particles, Quantum Field Theory
	Atomic, Molecular, Optical and Plasma Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	DRAGNs Jets and related issues: Observations of nearby FR II radio galaxies Properties of low luminosity radio galaxies: Polarization and jets Compact steep-spectrum radio sources: A progress report Modelling jets in class I and class II radio sources Supersonic extragalactic jets with turbulent boundary layers: Preliminary consideration VLBI observations of jets Parsec scale jets in FRI radio galaxies Probing the sub-parsec scale structures in extragalactic radio jets: VLBI at 43 GHz Symmetric structure in active

1.

galactic nuclei -- What does variability of the central sources tell us about jets? -- Infrared to centimetre variability of the Quasar 3C 273 --Multifrequency observations of intraday variability: Implications for the emission processes -- Formation of jets in extragalactic radio sources -- MHD-Stability of jets -- Dynamo-supported magnetic fields in radio jets -- Theory and simulation of jet stability -- Velocity and confinement of large-scale jets -- The velocity of large scale jets in Quasars -- The jet of M 87 -- Modelling the jet and cooling flow in M 87 -- The jet of the guasar 3C 273 -- Spectral ageing in cygnus A --HST observations of jets and radio lobes -- 3-D hydrodynamical simulations of extragalactic jets -- Numerical simulation of a hypersonic jet -- 3-D MHD simulations of extragalactic jets -- Radio galaxies and their environment -- The emission line lobes of 3C 368 (23) -- Jet disruptions at the cores of rich galaxy clusters -- Steps toward a radio H-R diagram -- Where have all the old radio sources gone? -- Asymmetries in powerful radio galaxies -- Ultrahigh energy cosmic rays from Fanaroff Riley class II radio galaxies -- Summary of the workshop.

Sommario/riassunto

The existence of jets emanating from the central sources of radio galaxies and quasars was perhaps the most important discovery for our understanding of the nature of active galactic nuclei. These proceedings present reviews and research papers on extragalactic radio sources. The book begins with a discussion of the phenomenology and models of radio sources. The main partis devoted to detailed studies of jets by VLBI, to the information obtained about the structure of the central source as deduced from variability studies, to production, confinement and velocity of jets as well as to numerical simulations of the jet phenomenon. Reviews of the two best studied jets - those in the radio galaxy M87 and the quasar 3C273 - illustrate our current observational picture of extragalactic radio jets in all accessible wavelength ranges. A section on the influence of the environment on radio galaxies concludes the book. This topical volume addresses researchers and graduate students in astrophysics.