

1. Record Nr.	UNISA996466634903316
Titolo	Relativistic fluid dynamics : lectures given at the 1st session of the centro internazionale matematico estivo (CIME) held at Noto, Italy, May 25-June 3, 1987 // editors A. Anile and Y. Choquet-Bruhat
Pubbl/distr/stampa	Berlin : , : Springer-Verlag, , [1989] 1989
ISBN	3-540-48142-7
Edizione	[1st ed. 1989.]
Descrizione fisica	1 online resource (V, 315 p.)
Collana	C.I.M.E. Foundation Subseries ; ; 1385
Disciplina	532.05
Soggetti	Relativistic fluid dynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Covariant theory of conductivity in ideal fluid or solid media -- Hamiltonian techniques for relativistic fluid dynamics and stability theory -- Covariant fluid mechanics and thermodynamics: An introduction -- Relativistic plasmas -- An improved relativistic warm plasma model -- Relativistic extended thermodynamics II -- Relativistic extended thermodynamics: General assumptions and mathematical procedure -- Relativistic hydrodynamics and heavy ion reactions -- Some problems in relativistic hydrodynamics.
Sommario/riassunto	In recent years the subject of relativistic fluid dynamics has found substantial applications in astrophysics and cosmology (theories of gravitational collapse, models of neutron stars, galaxy formation), as well as in plasma physics (relativistic fluids have been considered as models for relativistic particle beams) and nuclear physics (relativistic fluids are currently used in the analysis of the heavy ion reactions). Modern methods of analysis and differential geometry have now also been introduced. The International C.I.M.E. Course brought together expertise and interest from several areas (astrophysics, plasma physics, nuclear physics, mathematical methods) to create an appropriate arena for discussion and exchange of ideas. The main lecture courses introduced the most significant aspects of the subject and were delivered by leading specialists. The notes of these have been written up for this volume and constitute an up-to-date and thorough

treatment of these topics. Several contributions from the seminars on specialized topics of complementary interest to the courses are also included.
