1. Record Nr. UNINA9910844596103321

Autore	Beazley, Elisabeth
Titolo	Designed to live in / Elisabeth Beazley
Pubbl/distr/stampa	Abingdon, Oxon, : George Allen & Unwin LTD, 2024
ISBN	978-1-032-70881-2
Descrizione fisica	198 p. : ill. ; 22 cm
Disciplina	720.942 728
Locazione	FARBC
Collocazione	ARCH B 4344
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9910254601203321

Autore	Pike Oliver James
Titolo	Particle Interactions in High-Temperature Plasmas / / by Oliver James Pike
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-63447-X
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (154 pages) : illustrations, tables
Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053
Disciplina	537.16
Soggetti	Plasma (Ionized gases) Astrophysics Particle acceleration Plasma Physics Astrophysics and Astroparticles Particle Acceleration and Detection, Beam Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa

Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction -- Theoretical Background -- Dynamical Friction in a Relativistic Plasma -- Transport Processes in a Relativistic Plasma -- Numerical Simulations of High Temperature Plasmas -- An Experiment to Observe the Breit-Wheeler Process -- Conclusions.
Sommario/riassunto	This thesis makes two important contributions to plasma physics. The first is the extension of the seminal theoretical works of Spitzer and Braginskii, which describe the basics of particle interactions in plasma, to relativistic systems. Relativistic plasmas have long been studied in high-energy astrophysics and are becoming increasingly attainable in the laboratory. The second is the design of a new class of photon–photon collider, which is the first capable of detecting the Breit–Wheeler process. Though it offers the simplest way for light to be converted into matter, the process has never been detected in the 80 years since its theoretical prediction. The experimental scheme proposed here exploits the radiation used in inertial confinement fusion experiments and could in principle be implemented in one of several current-generation facilities.