Relativity

This module is an introduction to Einstein's theories of special and general relativity. The first part of the module deals with special relativity, and is mainly about the strange dynamics that happen at speeds comparable to the speed of light. The second part develops the mathematical machinery needed to study the curvature of space-time and the subtle effects of gravity; this is the general theory of relativity. The third part deals with various consequences of the theory, and will touch upon topics like black holes and the big bang.

View Online

@book{Choquet-Bruhat_2015, address={Oxford}, edition={First edition}, title={Introduction to general relativity, black holes, and cosmology}, url={http://ezproxy.library.qmul.ac.uk/login?url=http://www.vlebooks.com/vleweb/product/openreader?id=QMUL&isbn=9780191644528&uid=^u}, publisher={Oxford University Press}, author={Choquet-Bruhat, Yvonne}, year={2015} }

@book{D'Inverno, R.A._1992, title={Introducing Einstein's relativity}, publisher={Clarendon Press}, author={D'Inverno, R.A.}, year={1992} }

@book{Faber_1983, address={New York}, title={Differential geometry and relativity theory: an introduction}, publisher={M. Dekker}, author={Faber, Richard L.}, year={1983} }

@book{Rindler_2006, address={Oxford}, edition={2nd ed}, title={Relativity: special, general, and cosmological}, url={http://www.loc.gov/catdir/toc/fy0611/2006277893.html}, publisher={Oxford University Press}, author={Rindler, Wolfgang}, year={2006} }

@book{Woodhouse_2007, address={London}, title={General relativity}, volume={Springer undergraduate mathematics series}, url={http://www.loc.gov/catdir/toc/fy0705/2006926445.html}, publisher={Springer}, author={Woodhouse, N. M. J.}, year={2007} }