

Gary Gibbons

University of Cambridge

Links between general relativity and other parts of physics

Authors: G. Gibbons

Now that General Relativity has become such a central part of modern physics, its geometrical formalism being taught as part of almost all undergraduate physics courses, it is natural to ask: how can its basic concepts and techniques be used to illuminate areas of physics which have no connection with gravity. Another way of asking this question is: are there analogue situations to those occurring in General Relativity. The search for such analogues is of course an old one, but recently, because of advances in technology, these questions have become more topical. In this talk I will illustrate this theme by examples drawn from optics, acoustics, liquid crystals, graphene and the currently popular topic of cloaking.