

Prof. Jonathan (John) Ellis

John Ellis currently holds the Clerk Maxwell Professorship of Theoretical Physics at King's College in London. After his 1971 PhD from Cambridge University, he worked at SLAC, Caltech, and CERN (Geneva), where he was Theory Division Leader for six years. His research interests focus on the phenomenological aspects of elementary particle physics and its connections with astrophysics, cosmology and quantum gravity. Much of his work relates directly to interpreting results of searches for new particles. He was one of the first to study how the Higgs boson could be produced and discovered. He is currently very active in efforts to understand the Higgs particle discovered recently at CERN, as well as its implications for possible new physics such as dark matter and supersymmetry. He also studies possible future particle accelerators, such as the Compact Linear Collider (CLIC) and future circular colliders, is known for his relentless efforts to promote global collaboration in particle physics. John Ellis was awarded the Maxwell Medal (1982) and the Paul Dirac Prize (2005) by the Institute of Physics. He was elected Fellow of the Royal Society of London in 1985 and of the Institute of Physics in 1991, and is an Honorary Fellow of King's College Cambridge and of King's College London.

Research Interests

John's primary research is on particle physics beyond the Standard Model, but he also strays into related areas of high-energy astrophysics and cosmology. Within particle physics, he is particularly interested in predictions for collider experiments and the interpretation of their results, and his interests in astrophysics and cosmology include dark matter and strategies to detect it, as well as dark energy and cosmological inflation.

Much of his research concerns supersymmetry, which he considers to be one of the most promising possible extensions of the Standard Model, and he is actively working on searches for supersymmetric particles at the LHC and as astrophysical dark matter.

He is also interested in models of quantum gravity, particularly those derived from string theory, and is looking for possible experimental probes of such models, either in accelerator experiments or in high-energy astrophysics and cosmology.

