



Theoretical physicist Claudio Bunster was born in Santiago, April 15, 1947, under the name Claudio Teitelboim, which he maintained until 2005.

Educated at Universidad de Chile and Princeton University, Bunster has taught at Princeton, the University of Texas at Austin and Universidad de Chile and has been a long-term member at the Institute for Advanced Study, Princeton.

He was awarded the Chilean National Science Prize in 1995 and was elected foreign associate of the United States National Academy of Sciences in 2005.

Bunster's first interest in theoretical physics was the problem of radiation reaction in classical electrodynamics, where he found a new splitting of the energy momentum tensor of the electromagnetic field of a classical point charge in two separately conserved pieces. This led to a reinterpretation of the Lorentz-Dirac equation of motion. Then his attention turned to general relativity, where he elucidated the Hamiltonian structure of spacetime, giving a geometrical meaning to the commutation relations of the generators of hypersurface deformations. Among the results of his subsequent research, one may find, for example, significant contributions to: the determination of the role of surface integrals as generators of asymptotic symmetries in general relativity and gauge theories, the understanding of the quantum numbers of a black hole and its thermodynamics, the theory of black holes in lower dimensions, the general theory of constrained systems and its quantization, the dynamic neutralization of the cosmological constant, and the generalization of the notion of electric-magnetic duality to extended objects and higher spins.

Bunster has been the Director of the Centro de Estudios Científicos (CECs) since its foundation in 1984. Besides its work as Director and his research activity in theoretical physics, Bunster has been involved in public service. He served as Presidential Science Advisor in President Eduardo Frei's administration (1994-2000). During his tenure as science advisor the Presidential Science Chairs and the Millennium Science Initiative were established. He was also a member of the Dialogue Board on Human Rights (Mesa de Diálogo sobre Derechos Humanos), established by the Government to address pending human rights problems, with the participation of civilians and the military.

Bunster has been especially interested in incorporating the armed forces in the research effort as a way to strengthen democracy through science. This interest has led to joint work in science between CECs, the Chilean Army, Navy and Air Force, and distinguished foreign institutions. Among the fruits of these collaborations are several unprecedented expeditions to the Antarctic, in which Bunster has had a hands-on participation.

Bunster was elected to the Natural Academy of Sciences of the United States in 2005 and was made Honorary Member of the Solvay Institute in 2007. He received the Natural Science Prize of Chile in 1995, the Humboldt Award in 2011 and the TWAS-Lenovo Science Prize in 2013.

[List of publications](#) CONTACT Telephone: +56-63-2234531 Fax : +56-63-2234607 E-Mail :
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