

4th International Conference on Physics

September 17-18, 2018 | Berlin, Germany

Sustainable development, energy and entropy

Laszlo P Csernai

University of Bergen, Norway

The physical fundamentals of sustainable development in physics and entropy as well as the basics of energy, heat and entropy and waste heat will be presented. Following the ground breaking work of E Schroedinger, it will be shown that sustainable development can be quantitatively connected to decreasing entropy. Subsequently we will discuss different energy sources, their efficiency and the connected entropy production. Energy storage and transfer will be analyzed for different processes from the point of view of efficiency and entropy production. Finally the same analysis will be presented for energy use and some examples from present human technology.

Biography

Laszlo P Csernai worked as Professor of Theoretical Physics in Bergen, Norway in the recent 30 years. He has earlier worked in Hungary, East- and West Germany and in the USA. He supervised 23 students for Master's degree and 16 for PhD from his Bergen Graduates and Postdocs, today seven are Professors, in USA, China, Romania, Spain and Oslo. He worked primarily in the field of nuclear theory, mostly with high energy heavy ions and has more than 300 publications in many fields of physics. Between 2000-2005, he was directing the Bergen Computational Physics Laboratory, a 1 million Euro, Research Infrastructure of the EU. He is member of Det Norske Videnskaps-Akademi, the Norwegian Academy of Science and Technology, two Hungarian Academies and he is now member of the Council and earlier he Chaired the Physics and Engineering Section of Academia Europaea.

laszlo.csernai@ift.uib.no