CEC Awards

SAMUEL C. COLLINS AWARD 2015

Dr. Philippe Jean Lebrun

In 1965 the Cryogenic Engineering Conference (CEC) established an award in honor of the late Samuel C. Collins, Professor of Mechanical Engineering at the Massachusetts Institute of Technology. One of Professor Collins’ most notable works is his invention of the modern helium liquefier. The Collins Award is awarded to an individual who has made outstanding contributions to the identification and solution of cryogenic engineering problems and has additionally demonstrated a concern for the cryogenic community through service and leadership to this community. The award is open to persons without regard to national origin.

The CEC Awards Committee reviewed multiple nomination packages for highly qualified individuals and selected Philippe Lebrun as the recipient of the 2015 Samuel C. Collins Award.

Philippe Lebrun received his engineer Diploma in 1973 from the Ecole Nationale Supérieure des Mines and his M.S. in 1974 from the California Institute of Technology. He began his professional career in cryogenic engineering at CERN in Geneva, Switzerland in 1974. He currently is a member of the Director General’s Unit involved with studies for new high-energy accelerator projects for CERN. In the 1970s he carried out the design, the construction, and the operation of the ISR superconducting high-luminosity insertion, which was the first system of superconducting magnets routinely operated in a running accelerator. By 1990 he became the deputy group leader of the Cryogenic Group of the Accelerator Division of CERN and took over the responsibility of the R&D in cryogenics for the Large Hadron Collider (LHC) project. He served as head of the Cryogenics Group from 1994 to 1998, after which he became head of the Large Hadron Collider Division from 1999 to 2001. He served as head of the Accelerator Technology Department from 2002 to 2008. In addition to managing large projects and department staffs up to 450 people, he also invented and developed many new technologies very useful to large accelerator projects, including an innovative cooling method based on helium “bayonet” heat exchangers, launching an R&D program on cold compressors, and inventing the “cryogenic buffer” for dealing with quenches in superconducting magnets.

Since 1988, Philippe Lebrun has been very active in various training programs in the teaching of cryogenic engineering and technology. He regularly teaches in the CERN training program and in various European Universities. He is a member of the International Cryogenic Engineering Committee, serving as co-chair from 2000 to 2004, is head of section A “Cryogenics“ and Vice-President of the Science and Technology Council of the International Institute of Refrigeration, and is an International Advisory Editor of the journal “Cryogenics“.
Philippe Lebrun is a worldwide recognized expert in cryogenics, vacuum, and superconductivity, for which he has received many awards. These awards include the 2001 Russell B. Scott Award for the best applications paper, the Doctor honoris causa award from Wroclaw University of Technology in 2007, the Kammerlingh Onnes medal from the KNVvK, Delft (Netherlands) in 2012, and the Nikola Tesla Prize of the Petrovich Njegosh Foundation, Podgorica/Paris in 2014. Philippe Lebrun has played a key role in advancing the strength of the international cryogenics community.

THE RUSSELL B. SCOTT MEMORIAL AWARDS

The Russell B. Scott Memorial Awards honor the first head of the Cryogenic Engineering Laboratory of the Boulder Laboratories of the National Bureau of Standards, now the National Institute of Standards and Technology. Mr. Scott was the founder of the Cryogenic Engineering Conference (CEC), the first of which was held in 1954 in Boulder, Colorado. He is the author of the book *Cryogenic Engineering*, published by the Princeton press in 1959. Mr. Scott retired in 1965 after 37 years at NBS and died in 1967.

The Scott Memorial Awards provide an incentive for the production and presentation of high quality papers at the Cryogenic Engineering Conferences, and recognition of authors who, in the judgment of the CEC Board of Directors, presented the best papers at the proceeding conference. The awards consist of a certificate and an honorarium.

In 2015, two awards for the best papers delivered at the 2013 CEC in Anchorage, Alaska, USA, and published in *Advanced in Cryogenic Engineering, Vol. 59 A/B (1573)*, were presented before the Tuesday morning Plenary Session at the 2015 Tucson Conference.

**Best Paper for Cryogenic Engineering Research**

Y. Tanno, S. Ito and H. Hashizume

*for their paper*

*“Characteristic Evaluation of Cooling Techniques Using Liquid Nitrogen and Metal Porous Media”*  
*Adv. Cryog. Eng., Vol. 59 A/B (2014), pp. 597-604*

and

**Best Paper for Cryogenic Engineering Applications**

J.H. Baik, S.W. Karng, N. Garceau, Y.H. Jang, C.M. Lim and I.H. Oh

*for their paper*

*“Development of 1 L hr⁻¹ Scale Hydrogen Liquefier Using a Gifford-McMahon (GM) Cryocooler”*  
*Adv. Cryog. Eng., Vol. 59 B (2014), pp. 1357-1364*
STUDENT MERITORIOUS PAPER AWARD

The Cryogenic Engineering Conference (CEC) Board of Directors also recognizes students who write high quality papers. The papers are submitted for evaluation prior to the conference and ranked on the basis of research merit and quality of writing. The CEC Board recognizes the following contribution to the 2015 conference:

R.C. Dhuley and S.W. Van Sciver

for their paper

“Heat Transfer in a Liquid Helium Cooled Vacuum Tube following Sudden Vacuum Loss”

The student author who was presented with the award is:

Ram Dhuley
Florida State University

KLAUS AND JEAN TIMMERHAUS SCHOLARSHIP AWARD

The Klaus and Jean Timmerhaus Scholarship Award was established by the CEC Board of Directors to develop and foster increased interest and participation in fields of cryogenic studies and to encourage future engineers and scientists in these areas. Recipients must be enrolled in a U.S. college or university as a full-time graduate student in an engineering or scientific discipline that is relevant to cryogenic engineering or technology. The award is named in honor of the late Dr. Klaus Timmerhaus, who has been a driving force behind the CEC since its inception and in memory of his late wife, Jean. Dr. Timmerhaus was a Professor of Chemical Engineering at the University of Colorado.

At the 2015 conference, the CEC Board awarded the CEC Timmerhaus Scholarship to:

Ian Richardson
Washington State University