



INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS
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NEWS RELEASE

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IUGG GOLD MEDAL



The IUGG Gold Medal is bestowed on **William Richard Peltier** (University of Toronto, Canada) for “*his scientific contributions that have been pioneering and profound in deep earth physics and climate system processes, and for his unselfish contributions to international scientific collaboration*”. “Professor Peltier is certainly one of the few living geophysicists who have had profound influence in the field of the Earth system evolution. His work is truly interdisciplinary, involving geophysics, geodesy, glaciology, climate and paleo-climate science, atmospheric science and geophysical fluid dynamics”, IUGG Fellow Anny Cazenave (France) tells about her colleague.

Garry K. C. Clarke, Emeritus Professor of Geophysics (University of British Columbia, Canada) shares his thoughts: “Around 1985 the ideology of Earth Systems Science sprung to life. The concept caught fire because it resisted the reductive tendency of mainstream science and challenged the geoscience community to think both broadly and deeply. The problem with broad and deep thinking is that most practitioners can successfully manage only one of these. But not Peltier. By the time that Earth Systems Science reached the mainstream, he had been a leading exemplar for more than a decade. Peltier has shown the rest of us how integrative science is done.”

“I believe the mark of a truly great scientist is his ability to move effortlessly between different sub-fields (in Einstein’s *annus mirabilis* he published about three completely separate sub-fields of physics: Brownian motion, the photoelectric effect and the theory of special relativity). It is a concern to me that today’s young scientists are becoming more and more silo-ised, never moving from their doctoral research topic as their careers progress. This makes the cross-fertilisation of ideas, crucial for the advancement of science, more and more difficult. I believe it is important to recognise scientists who have bucked this trend – it will send an important message to the community. Professor Peltier is an example of such a scientist who has moved around different areas in the mathematical geosciences par excellence. His work connects many of the individual IUGG Association: IAMAS, IASPEI, IAG, IAPSO. His work has spanned basic geophysical fluid dynamics in the oceans and atmosphere, to the problem of mantle convection in the planetary interior, to the study of paleoclimate variability in data and complex models and to the development of models to study the evolution of topography and ice distributions in the deep past. I think you will be hard pressed to find a scientist of such exceptionally high status with such broad interests in the geosciences” - Tim Palmer (Oxford University, UK).

Daniel Rothman (Massachusetts Institute of Technology, USA) recalls: “Peltier is one of the world’s leading theoretical geophysicists. But I would like to focus on Peltier’s contributions to the IUGG Commission on Mathematical Geophysics (CMG). Dick became Chair of the CMG in the early 1990s and oversaw the organization of several biannual meetings. I served as CMG Secretary at the time. Dick’s chairmanship was transformative. At the time he took over, CMG meetings were almost entirely focused on seismology, a consequence of the important role the CMG had previously played in the development of seismic inverse theory. By the early 1990s, however, many of us perceived a need to expand more widely the purview of mathematical geophysics. Dick lobbied forcefully for this, and together we created a community of mathematical geophysicists focused on wide-ranging applications of mathematics to all of earth science, including climate dynamics, paleoclimate, atmosphere and ocean dynamics, pattern formation in geology, granular fluid mechanics, and even biogeochemistry ... Dick’s successful transformation of the CMG is the result not only of his organizational skills and good scientific taste, but also his wide interests and the respect he engenders throughout the IUGG. The CMG community continues to reap the rewards of his efforts.”

W. Richard Peltier gained a BSc in Physics, in 1967 from the University of British Columbia, MSc and PhD, both in Physics, in 1969 and 1971, respectively, from the University of Toronto, and DSc from University of Waterloo in 2007. He moved from the position of Assistant Professor (1974) to Full Professorship of the University of Toronto in five years. He was visiting professor of UCLA (USA), NCAR (Boulder, Colorado), Cambridge University (UK), IPGP and ENS Paris (France), and University of Bergen, (Norway). W. Richard Peltier has distinction of having been made a Fellow of the American Geophysical Union, the American Meteorological Society, the Royal Society of Canada, and the Norwegian Academy of Science and Letters. He received a number of awards including the top prizes of Canada and the United States.

The Gold Medal will be presented to W. R. Peltier by the IUGG President at the Award Ceremony of the XXVII IUGG General Assembly on 13 July 2019 in Montreal, Canada. The Medalist will receive also a certificate of IUGG Honorary Membership, and a Fellow pin.

International jury

The IUGG Gold Medal Committee was chaired by Brian Hoskins (UK). Members of the Committee were Jeffrey Freymueller (USA), Valerie Masson-Delmotte (France), Trevor McDougall (Australia), Inez Staciarini Batista (Brazil), Roberto Sulpizio (Italy), Zhongliang Wu (China), and Alik Ismail-Zadeh (Germany/Russia, ex-officio).

Please join us in congratulating Professor W. Richard Peltier!

For information: Alik Ismail-Zadeh, IUGG Secretary General