



20 December 2018

To, THE PRESIDENT OF ARGENTINA, **MAURICIO MACRI** AND THE ARGENTINE AUTHORITIES IN SCIENCE AND TECHNOLOGY

The Executive Council of the International Union of Pure and Applied Physics (IUPAP) took place in Vilnius, Lithuania, from 31<sup>st</sup> October 2018 to 2<sup>nd</sup> November 2018. The Executive Council meets with the Chairs of our 18 Commissions and 4 Affiliated Commissions to continue the work of the Union between the meetings of our General Assembly.

Two of the members of our meeting are Argentinians working in Argentinian institutions. We learned from them, and from the President of the Argentina Physical Society, that Argentina is suffering significant cuts to its science budget, and that this is happening after a twelve-year period of an expanding scientific research effort. Many of our 55 member countries have experienced economic developments that pushed their governments to make significant cuts to the science budget of their country. We have learned that the difficulties faced by the scientific community are greater when the cuts occur after a period when the government has been building up scientific capability and attracting talented scientists to their institutions. It takes a significant period of time to create excellent scientific institutions — the time involved is decades, not years. But the time it takes to disrupt these institutions is much shorter — perhaps one year — when they are hit by dramatic budget cuts. As a result people, and the knowledge and experience they have, depart the country. The skills which have been developed are lost, and the flow of innovation from scientific research to industry is cut off. Young scientists who had hoped to make a scientific career in their home country will go elsewhere, because the market for their talent is world-wide. After this disruption to their careers they will be very reluctant to return to their home country, fearing that it will happen again.

After the 2003-2015 expansion of the scientific research effort, science support in Argentina has now contracted to the extent that many research and academic institutions are having difficulty paying for their basic services and maintenance, let alone paying the salaries of their tens of thousands of employees. The dismantling of internationally renowned research groups and a brain drain involving some of Argentina's best scientists will occur. Scientific research will suffer, and as all economies are ultimately built on the talents of its people, the wider economy will also suffer. Noting that the salaries of the researchers and scholars have become the lowest of the geographical region, we foresee a new exodus of highly trained scientists.

The Executive Council appreciates the serious economic difficulties faced by Argentina. However, it respectfully points out that the severity of the budget cuts, personnel reductions, breach of assumed commitments in research grants, international cooperation and serious restrictions imposed by the current government will inhibit recovery from those difficulties, and pleads that you reverse these decisions before even more damage is done, and while there is still a chance of recovery. That will avoid squandering the investment that Argentina has made over many years in its scientific capability.

President: Kennedy Reed Physics Division, Mail stop L-473 Lawrence Livermore National Laboratory Livermore, California 94550 USA Email: reed5@llnl.gov President Designate: Michel Spiro President, French Physical Society 33, rue Croulebarbe 75013 Paris France Email: mspiro@admin.in2p3.fr

Secretary General: Kok Khoo Phua Institute of Advanced Studies Nanyang Technological University Nanyang Executive Center #02-18 60 Nanyang View SINGAPORE 639673 Email:.kkphua@wspc.com.sg Associate Secretary General: Rudzani Nemutudi Themba LABS Deputy Director Old Faure Road, Faure P.O. Box 722, Somerset West 7129 SOUTH AFRICA Email: rudzi@tlabs.ac.za

Administration of International Union of Pure & Applied Physics undertaken by: IUPAP Singapore Ltd, Nanyang Technological University, #02-18, 60 Nanyang View, Nanyang Executive Centre, Singapore 639673 Phone: 65 6790 6491 Fax: 65 6794 4941 E-mail: IUPAP.Admin@ntu.edu.sg Registered company number 201437064G. Directors: Bruce McKellar; Kok Khoo Phua



supported by: NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

IUPAP Office hosted &

The Executive Council resolved to write to you to explain the effects that these policies will have on the scientific community in Argentina, and how they will seriously jeopardize the economic future of the country, and to publish that letter on its website. This letter is the implementation of that resolution. It will be published, together with your reply, on the IUPAP website, <u>www.iupap.org</u>.

Kennedy Reed

Kennedy Reed

President International Union of Pure and Applied Physics (IUPAP)

President: Kennedy Reed Physics Division, Mail stop L-473 Lawrence Livermore National Laboratory Livermore, California 94550 USA Email: reed5@llnl.gov President Designate: Michel Spiro President, French Physical Society 33, rue Croulebarbe 75013 Paris France Email: mspiro@admin.in2p3.fr Secretary General: Kok Khoo Phua Institute of Advanced Studies Nanyang Technological University Nanyang Executive Center #02-18 60 Nanyang View SINGAPORE 639673 Email:.kkphua@wspc.com.sg

Associate Secretary General: Rudzani Nemutudi Themba LABS Deputy Director Old Faure Road, Faure P.O. Box 722, Somerset West 7129 SOUTH AFRICA Email: rudzi@tlabs.ac.za

Administration of International Union of Pure & Applied Physics undertaken by: IUPAP Singapore Ltd, Nanyang Technological University, #02-18, 60 Nanyang View, Nanyang Executive Centre, Singapore 639673 Phone: 65 6790 6491 Fax: 65 6794 4941 E-mail: IUPAP.Admin@ntu.edu.sg Registered company number 201437064G. Directors: Bruce McKellar; Kok Khoo Phua