

Pugwash Conferences on Science and World Affairs Unione degli Scienziati Per Il Disarmo

in collaboration with

Amministrazione Comunale – Rosignano Marittimo (LI)
Centro Interdisciplinare Scienze per La Pace – Univ. di Pisa
Centro Interdipartimentale Ricerche sulla Pace “G.Nardulli” – Univ. “A. Moro”, Bari
Dipartimento di Scienze Fisiche e Tecnologie della Materia del CNR
Frontier Detectors for Frontier Physics
International School On Disarmament And Research On Conflicts
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18TH CASTIGLIONCELLO INTERNATIONAL CONFERENCE

The Crisis of the Arms Control Regime

In memory of Carlo Bernardini

October 4-5, 2019 – Castello Pasquini – Castiglioncello (Livorno)

SHORT BIOGRAPHIES

Massimo Artini is an entrepreneur in Information Tecnology since 1995. Elected in 2013, he has been the Deputy Chairman of the Defence Committee at the Chamber of Deputies. He has been working mainly to propose new laws and to reform the regulations of Defence and Foreign Affairs (concerning, for example, International Missions Law – 2016, Cyber Governance – 2017, Armaments Trade and Export Control – 2017). He was spokesman of Alternativa Libera (a political force created by ten parliamentarians - former Movimento 5 Stelle), now he has been nominated in the Executive Comitate of "Italia in Comune", founded by Federico Pizzarotti. Together with Hon. Tatiana Basilio and Riccardo Ferretti (director of journal Panorama Difesa) founded Laran, thought

as a Think Tank working to propose a new approach to Defence, Foreign Affairs, Migration, Counter-terrorism policies.

Sergey Batsanov, retired Soviet/Russian ambassador and negotiator on arms control and disarmament, is member of the Council of the Pugwash Conferences on Science and World Affairs and Director of the International Pugwash Geneva Office; he has been one of the key authors of the international Convention for the Prohibition of Chemical Weapons and served as Director of the Organisation for the Prohibition of Chemical Weapons (OPCW) from 1993 to 2004; from 1989 to 1993 he was representative of the Soviet Union / Russian Federation to the Conference on Disarmament in Geneva. He is member of the European Leadership Network.

Francesco Calogero is Professor Emeritus of Theoretical Physics at *Università La Sapienza* in Rome. He published (in English) more than 400 papers (about half as single author) and 5 books (one with a co-author) on Theoretical and Mathematical Physics topics; and an analogous number of publications (about half in English and half in Italian) on arms control and disarmament topics. From 1989 to 1997 he served as Secretary General of the Pugwash Conferences on Science and World Affairs, and in that capacity he accepted (Oslo, Dec. 10, 1995) the Nobel Peace Prize awarded jointly to Joseph Rotblat and to Pugwash "for their actions to reduce the role of nuclear weapons in international politics, and in the long run to eliminate such weapons." From 1997 to 2002 he chaired the Pugwash Council, of which he is still an *ex officio* member. He was a member of the Governing Board of SIPRI from 1982 to 1992, and was one of the initiators of USPID, on whose Scientific Council he still serves. This year he shared with two colleagues the "2019 Dannie Heineman Prize for Mathematical Physics" assigned by the American Physical Society, and he received the "Premio Presidente della Repubblica" (Prize of the President of the Italian Republic), the main prize assigned in odd years to an Italian natural scientist by the Accademia Nazionale dei Lincei.

Giuliano Colombetti is a Physicist, retired Research Director at CNR (National Research Council) now CNR Research Associate; former Secretary of Pisa Section of *Unione degli Scienziati Per Il Disarmo* (USPID, Union of Scientists for Disarmament); Member of the Scientific Council of USPID.

Paolo Cotta Ramusino is Secretary General of Pugwash Conferences on Science and World Affairs and Member of the Pugwash Executive Committee. He is Professor of Mathematical Physics at the University of Milan. He was Director of the Landau Network's International

Disarmament and Security Program - *Centro Volta*; He was the National Secretary of USPID, and is member of the Scientific Council of USPID.

Nicola Cufaro Petroni is a theoretical physicist and a professor of Probability and Statistics at the Department of Mathematics of the University "Aldo Moro" in Bari. He is also a member of the Interdepartmental Centre for Peace Research (CIRP) "G. Nardulli" of the same University. He was National secretary of USPID from 2002 to 2011, and he is now a member of its Scientific Council.

Marco De Andreis is director of statistical analysis at Italy's Customs Agency. A former European Commission official, he is a member of the Scientific Council of USPID.

Mirco Elena is a physicist and researcher at the Center for International Cooperation (Trento) . Journalist with multidisciplinary interests. Professionally had worked with ion beams and thin films to modify technological characteristics of materials. At present works on technical aspects of peace, and in particular on issues related to energy. Has written more than fifty technical articles on materials science. Has edited books on the transfer of technology and of weapons. Author of two books on the Chernobyl disaster. Author of one book on the similarities and differences of China and Italy. Has a forty-years-long experience in the popularisation of science, lecturing at public meetings and in schools. Author of hundreds of articles on newspapers, magazines and journals. Conductor of series of radio programs. Participation as expert in TV programs. Vice-secretary general of Uspid (Union of Italian Scientists for Disarmament). Responsible for the Trento section of Uspid. Member of the Board of Directors of Isodarco (International School on Disarmament and Research on Conflicts), in charge of the Trento office of the School.

Barbara Gallo Journalist since 2016, she graduated in Sociology from the University of Rome "La Sapienza". Since 2005 she has dealt with issues related to the geopolitics of conflicts, human rights, children and women victims of modern conflicts, particularly in the area of the Asian subcontinent. Since 2014 she has been responsible for the "Window on the world" column in the online monthly magazine of the IRIAD (first Board Information System - SIS, from 2018 IRIAD Review) and collaborates with Archivio Disarmo, focusing on international relations.

Ettore Greco is Executive Vice President of the Istituto Affari Internazionali (IAI) of Rome. He also heads the institute's Multilateralism and Global Governance programme. He was Director of IAI from 2008 to 2017 and Deputy Director from 1997 to 2008. He worked as a visiting fellow at the Brookings Institution from January 2006 to July 2007. He taught at the universities of Parma and Bologna. From 2000 to 2006 he worked as correspondent for the Economist Intelligence Unit. From 1993 to 2000 he directed the IAI's program on Central and Eastern Europe. From 2000 to

2006 he was the Editor of the English-language journal the International Spectator. He is the author of a number of publications on the EU's institutions and foreign policy, transatlantic relations and the Balkans.

Massimo Inguscio President of the Italian National Research Council (CNR), of which he had previously directed the Department of Physical Sciences. Professor of Physics of matter. Former President of the Italian National Metrology Institute (INRIM). He is member of several Academies, including the National Academy of Lincei and Academia Europaea. He has been given the title of Grand Officer of the Order of Merit of the Italian Republic, awarded the Legion d'Honneur by the French Government, received the Enrico Fermi prize of the Italian Physical Society, the Herbert Walther Award of the Optical Society of America and the German Physical Society, the Grand Prix Scientifique de l'Academie des Sciences de l'Institut de France, the Humboldt Research Award. He has been awarded with an ERC Advanced Grant and included in the Thomson-Reuters list of 144 "World's most influential scientific minds" for his experimental research in atomic physics close to absolute zero, carried out at the European Laboratory for Non-linear Spectroscopy (LENS) of the University of Florence, of which he was co-founder and director. He is author of books and of more than 300 scientific papers, which have been cited around 14000 times for an h-index of 60 (ISI web of Sciences)

Domenico Laforenza is currently an emeritus research associate at the Department of Engineering, ICT and Technologies for Energy and Transportation (DIITET) of the Italian National Research Council (CNR). From the 1st of July 2008 to the 31st of August 2019 he was director of the Institute for Informatics and Telematics (IIT-CNR). In the same period he was also the head of the Registry for domain names for Italy. From the 1st of January 2013 to the 30th June 2019 he was President of the CNR Pisa Research Campus (Area della Ricerca CNR di Pisa). From the 1st of January 2014 to 31st of December 2017 Dr. Laforenza was President of ERCIM AISBL (European Research Consortium for Informatics and Mathematics). From April 2015 to October 2017 he is was member of the *Horizon 2020 "Future and Emerging Technologies" Advisory Group*. He was founder and responsible for the High Performance Computing Laboratory at the CNR Institute of Information Science and Technologies (ISTI-CNR) from the 1981 to June 2008. Dr. Laforenza received the doctoral degree in Computer Science from the Department of Computer Science of University of Pisa in 1977. He started work at CNUCE in 1972 where, during his period of employment, he was operator, programmer and performance evaluator until 1981. Since 1981 he has been researcher in Computer Science. His main areas of interest are: high performance computing, parallel and distributed systems programming, Grid and Cloud computing, Internet Governance, and more recently, the impact of IoT and AI on the privacy. From 1996 to 2006 Dr. Laforenza was professor

of Parallel and Distributed Applications at the Computer Science Department of the University of Pisa. Dr. Laforenza is author of numerous publications and organiser of National and international ICT events.

Diego Latella is a computer scientist. He is senior researcher of the National Research Council of Italy, at *Istituto di Scienza e Tecnologie dell'Informazione "A. Faedo"* (Institute of Information Science and Technology); his main field of research is that of formal/mathematical methods for the design and analysis of systems involving digital technology. He has been member of Computer Professionals for Social Responsibility. He is National Secretary of *Unione degli Scienziati Per Il Disarmo* ONLUS (USPID, Union of Scientists for Disarmament) since 2010. He is a member of the Board of Directors of International School On Disarmament and Research on Conflicts (ISODARCO) founded in 1966 by Edoardo Amaldi and Carlo Schaerf.

Francesco Lenci is a Physicist, retired Research Director at CNR (National Research Council) now CNR Research Associate; former Director of CNR Biophysics Institute (from 1990 to 2002) and former Member of CNR General Scientific Council (from 2006 to 2011). Senior Fellow of the *Centro Interdisciplinare Scienze per la Pace* (CISP - Interdisciplinary Centre for Peace Studies), Pisa University; Member of the Scientific Council of *Unione degli Scienziati Per Il Disarmo* (USPID, Union of Scientists for Disarmament), USPID National Secretary from 1983 to 1990; Member of the "Initiative Committee" preparing the Moscow Forum of 1987; Member of Pugwash Council.

Steven E. Miller is Director of the International Security Program in the Belfer Center for Science and International Affairs at Harvard University's Kennedy School of Government. He also serves as Editor-in-Chief of the scholarly journal, *International Security*, and co-editor of the International Security Program's book series, BCSIA Studies in International Security (which is published by The MIT Press). Previously, he was Senior Research Fellow at the Stockholm International Peace Research Institute (SIPRI) in Stockholm, Sweden and he taught Defense and Arms Control Studies in the Department of Political Science at the Massachusetts Institute of Technology. Miller is a Fellow of the American Academy of Arts and Sciences, where he has long been a member of (and formerly chaired) the Committee on International Security Studies (CISS). Along with Professor Robert Rosner of the University of Chicago, he was co-director of the American Academy's project on The Global Nuclear Future. He is active in the Pugwash Conferences on Science and World Affairs, an international scholarly association based in Rome. He is co-chair of the U.S. Pugwash Committee, a member of the Council of International Pugwash, and Chair of the Executive Committee of International Pugwash. Miller has written extensively on nuclear weapons issues,

US security policy, and US foreign policy. He has written or coauthored: *Soviet Nuclear Fission: Control of the Nuclear Arsenal in a Disintegrating Soviet Union* (1991); *Avoiding Nuclear Anarchy: Containing the Threat of Loose Russian Fissile Material and Nuclear Weapons* (1996); *War with Iraq: Costs, Consequences, Alternatives* (2002); *Nuclear Collisions: Discord, Reform, and the Nuclear Nonproliferation Regime* (2012); and *Meeting the Challenges of the New Nuclear Age: Nuclear Weapons in a Changing Global Order* (2019). He is co-author of several reports on the Iran nuclear crisis, including *The Iran Nuclear Deal: A Definitive Guide* (2015) and *The Iran Nuclear Archive: Impressions and Implications* (2019). Miller is also editor or co-editor of more than two dozen books, including *The Next Great War? The Roots of World War I and the Risk of US-China Conflict* (2014). Earlier edited works include *Going Nuclear: Nuclear Proliferation and International Security in the 21st Century*, (2010) and *Primacy and Its Discontents: American Power and International Stability* (2009).

Antonio Palazzi is a chemist, retired professor at the University of Bologna, Faculty of Industrial Chemistry; his main field of research is the synthesis of organometallic complexes and of light emitting compounds. Author of the chapter on “Chemical armaments” in the book “The ABC of mass destruction armaments” edited in the year 2012. Responsible for the Bologna section of *Unione degli Scienziati Per Il Disarmo ONLUS* (USPID, Union of Scientists for Disarmament), he is now member of its Scientific Council.

Emilio Parisini is a Group Leader at the *Center for Nano Science and Technology* of the Istituto Italiano di Tecnologia (IIT) in Milano. He received a M.Sc. (1990) and a Ph.D. (1995) in Chemistry from the University of Bologna. He carried out post-doctoral research at the University of Göttingen (Germany, 1995- 1997), at the University of Cambridge (U.K., 1997- 2001) and at Harvard University (Boston, U.S.A., 2001- 2009). He also obtained a M.Sc. in Epidemiology (2008) from Harvard University. His research interests are mostly at the interface between chemistry and biology. He is a member of USPID and a regular attendee at *Pugwash Conferences on Science and World Affairs* meetings.

Alessandro Pascolini is a senior scholar of the University of Padua, former associate professor of theoretical physics. He is deputy director (after having been director) of the Master in science communication of the University of Padua, where he teaches exhibitions for scientific communication and institutional communication. His research interests include theoretical nuclear physics, military technologies and arms control, the history of science and scientific dissemination. From 1988 to 2002 he was responsible for promoting the scientific culture of the National Institute of Nuclear Physics. As part of this activity he oversaw the organization and realization of sixty

exhibitions in Italy and abroad on various topics of scientific research and its applications, and has prepared audiovisual, cinematographic and multimedia texts and scientific dissemination materials. The European Physics Society awarded him the 2004 prize for scientific dissemination. He participated in the founding, in 1968, of ISODARCO, the association that organizes the "International Schools on Disarmament and Research on Conflicts", of which he is vice-president. From 1970 he participated in the Pugwash Conferences on Science and World Affairs. From 1973 to 1990 he was secretary of the Italian national Pugwash Group.

Enza Pellecchia is Full Professor of Private Law at the Department of Law at the University of Pisa. She is director of the *Centro Interdisciplinare Scienze per la Pace* (CISP - Interdisciplinary Centre for Peace Studies), at the University of Pisa, member of the scientific committee of the campaign "Senzatomica. Transforming Human Spirit for a nuclear free world" promoted by the Italian Buddhist Institute Soka Gakkai, and member of USPID.

Mario Rocca is Full Professor of Condensed Matter Physics at Università degli Studi di Genova and associated member of the IMEM CNR Institute. His main field of research is Surface Science and specifically gas surface interaction, catalytic reactions and surface plasmons. He is Editor of *Applied Surface Science* and of *Surface Science Reports* as well as Serier Editor of *Springer Tracts in Surface Science*. He has published more than 180 papers in peer reviewed journals. He is a member of the Scientific Council of USPID.

Laura Rockwood is the Director of Open Nuclear Network, a programme of One Earth Future. Laura has over 30 years of experience in non-proliferation and international safeguards. She has published extensively on safeguards and non-proliferation. In July 2012, she was honoured with the Distinguished Service Award by the Institute of Nuclear Materials Management (INMM) for long-term noteworthy accomplishments in, and service to, the nuclear materials management profession. Laura retired from the International Atomic Energy Agency (IAEA) in November 2013 as the Section Head for Non-Proliferation and Policy in the Office of Legal Affairs after 28 years of service. During her employment with the IAEA, she was the senior legal advisor on all aspects of the negotiation, interpretation and implementation of IAEA safeguards, and was the principal author of the document that became the Model Additional Protocol. She participated in high-level negotiations on Iran, Iraq and North Korea, and in the IAEA/US/Russian Federation negotiations on the Trilateral Initiative and the Plutonium Management and Disposition Agreement. Ms. Rockwood came to ONN from her position as Executive Director of the Vienna Center for Disarmament and Non-Proliferation (VCDNP) between 2015 and 2019. Prior to joining the VCDNP, she served as a resident Senior Research Fellow at Harvard University's Kennedy School

Belfer Center Managing the Atom Project. She received her BA degree from the University of California, Berkeley, and her Juris Doctor from the University of California's Hastings College of Law in San Francisco.

Carlo Schaerf is professor of Physics at the University of Rome "Tor Vergata" (ret.). He has done experimental work in the field of Hadron Physics mostly with polarized gamma-ray beams and polarized targets. He is the co-founder and President of the International School on Disarmament and Research on Conflicts (ISODARCO). He is the author of many scientific papers on Electro- and Photo-Hadronic Interactions and editor of several books on Photo-Nuclear Reactions and International Security. He is the first author of an extensive research on Political Violence in Italy supported by the Italian National Research Council (CNR)

Guglielmo Tamburrini is Professor of Philosophy of Science and Technology at Università di Napoli Federico II. His research interests concern ethical and social issues that emerge in the context of interactions with information and robotic systems, together with the associated methodological and epistemological problems. He coordinated the first European project on the ethics of robotics (ETHICBOTS, 2005-2008, VI FP). In 2014 he was awarded the international Giulio Preti award of the Regional Council of Tuscany for his research and teaching activities on the ethical and social implications of robotic technologies. He is a member of ICRAC (International Committee for Robot Arms Control) and of USPID (Union of Scientists for Disarmament).

Fabio Tarini, Computer Scientist, worked both as a researcher of CNR (the Italian National Research Council) and as an Associate Professor of Pisa University. At CNR, he served as responsible for the implementation of the first Italian computer network forerunner of Internet. At Pisa University, he co-founded the CISP (Interdisciplinary Centre for Peace Studies) and the undergraduate and graduate courses in "Sciences for Peace: International Cooperation and Transformation of Conflicts", serving as director of CISP from 2002 to 2010. Now retired, Fabio is a Senior Fellow at CISP, an external lecturer at Pisa University and a member of USPID.

Ambassador **Carlo Trezza** concluded in 2015 his mandate as Chairman of the Missile Technology Control Regime (MTCR). In 2010 the UN Secretary General appointed him as Chairman of his Advisory Board for Disarmament Matters. He served as Diplomatic Advisor to the Italian Minister of Defence and Co-Director of the Institute for High Defense Studies. In 2003 he chaired the Conference on Disarmament in Geneva. Prior to becoming Italy's Permanent Representative for Disarmament in Geneva, he served as Ambassador of Italy to the Republic of Korea. He was a Coordinator for Security and Disarmament and Head of the Office of the Secretary General at the

Ministry of Foreign Affairs. As a career diplomat he served in Zambia, Israel, Germany, Spain and in Washington DC. He is currently Senior Adviser for Disarmament and Non Proliferation of the Italian Institute of International Affairs (IAI) in Rome.

