4th International Symposium on the History of Particle Physics

10 – 13 November 2025

SPEAKERS

Fabiola Gianotti received a PhD in experimental particle physics from the University of Milan in 1989 and joined CERN as a research physicist in 1994. From 2009 to 2013, she was the head ("spokesperson") of the ATLAS experiment at the Large Hadron Collider (LHC). It was during this period that the ATLAS and CMS experiments announced the discovery of the Higgs boson. She was appointed Director-General of CERN for a first term of office starting in 2016 and renewed for a second term starting in 2021. She is the first woman to have held this role, and the first Director-General to be reappointed for a full second term. She has received 15 honorary doctoral degrees from universities across the world and is a foreign member of eight academies of science worldwide. She was ranked fifth in Time magazine's Person of the Year issue in 2012. In 2013, she was a joint recipient of both the Special Breakthrough Prize in Fundamental Physics and the Italian Physical Society's Enrico Fermi Prize, and in 2019 she received the Tate Medal for International Leadership from the American Institute of Physics.

Chris Llewellyn Smith is an emeritus Oxford professor of theoretical physics. He has worked at the Lebedev Institute in Moscow and spent three periods at CERN and one at SLAC. He found that SLAC deep inelastic electron data and CERN neutrino data, could be used to show that partons have non-integral charge and baryon number one-third, and that gluons carry around half a nucleon's momentum. Using methods that imply an upper bound on its mass, Chris showed that there must be a Higgs boson or bosons in well-behaved theories of the electroweak force.

From the mid-1970s, he became increasingly involved in 'beyond the standard model' phenomenology, and studying future accelerators (HERA and LEP). In 1984 he was the theoretical convenor in the first major study of the LHC. He then became increasingly drawn into the politics of particle physics, latterly as Chair of CERN's Scientific Policy Committee. Chris was Director General of CERN (1994-1998), when the Large Hadron Collider was approved, contributions from Non-Member States were negotiated, and construction started. Between 2010 and 2020 he was Director of Energy Research in Oxford, and oversaw the construction of SESAME as President of the Council. He is currently writing a political history of the LHC, and following up a major Royal Society study of Large-Scale Electricity Storage which he led. Among other honours, he was elected a Fellow of the Royal Society in 1984.

Michael Riordan earned his PhD in physics from MIT, where he worked as a grad student and postdoc on the MIT-SLAC electron-scattering experiments that led to the discovery of quarks. Following that, he served as Research Scientist at the University of Rochester, Assistant to the Director at SLAC, and Adjunct Professor of Physics at the University of California, Santa Cruz. He taught the history of physics and technology at Stanford and UC Santa Cruz. Riordan is author of The Hunting of the Quark, co-author of Crystal Fire, The Shadows of Creation, and Tunnel Visions, and an editor of The Rise of the Standard Model.

A Guggenheim Fellow and Fellow of the American Physical Society, Riordan was awarded the 2002 Andrew Gemant Award by the American Institute of Physics in recognition of his efforts in communicating physics and its cultural ramifications. In 2025, he was awarded the APS Abraham Pais Prize for his outstanding scholarly achievements in the history of physics.

John Krige is the Kranzberg Professor Emeritus in the School of History and Sociology in Georgia Tech, Atlanta. He was the British representative in the first project to write the three- volume history of CERN from its founding up to the 1970s. He then became the project leader of the history of the European Space Agency that was published by ESA in two large volumes in the late 1990s. After spending five years as a Directeur de la Recherche in the French CNRS, Krige was appointed to his position at Georgia Tech in the year 2000.

Krige has published extensively on the history of science and technology during the Cold War and beyond (h-index=31). He has concentrated on their role as instruments of US foreign policy, e.g. in Sharing Knowledge, Shaping Europe. US Technological Collaboration and Nonproliferation (University of Chicago Press, 2016). He recently co-authored a history of US export controls entitled Knowledge Regulation and National Security in Postwar America (University of Chicago Press, 2022). He has given multiple distinguished lectures and was awarded the Dickenson Medal by the Newcomen Society (2005) and the Francis Bacon Award for making a substantial impact in the history of science, the history of technology, or historically-engaged philosophy of science (2019).

Chris Quigg is Distinguished Scientist Emeritus at Fermilab. His interests range from heavy quarks through cosmic neutrinos. His work on electroweak symmetry breaking and supercollider physics, which was recognized by the 2011 J. J. Sakurai Prize of the American Physical Society for outstanding achievement in particle theory, charted the course for exploration at Fermilab's Tevatron and CERN's Large Hadron Collider. He is the author of a classic textbook on gauge theories, and (with Robert Cahn) of Grace in All Simplicity, for a broad readership.

Quigg graduated from Yale in 1966 and received his Ph.D. at Berkeley in 1970 under J.D. Jackson. After four years in Stony Brook's Institute for Theoretical Physics, he moved to Fermilab, which has remained his scientific home. In 1987 he returned to Berkeley to serve for two years as Deputy Director of the Superconducting Super Collider Central Design Group.

Chris Quigg is a Fellow of the American Association for the Advancement of Science and of the American Physical Society. He received a Humboldt Senior Scientist Award and a Rockefeller Foundation Bellagio Residency. Quigg has enjoyed editorial responsibilities for Physical Review Letters, Reviews of Modern Physics, and the Annual Review of Nuclear and Particle Science.

Ugo Amaldi has worked at CERN for thirty-five years, participating in and leading numerous experiments in particle physics and giving, in particular, significant contributions in 1973 to the discovery of the proton-proton rising cross-section, with the technique of Roman Pots at the CERN Intersecting Storage Rings, and in 1991 to the unification of the fundamental forces, using the novel LEP data.

Between 1980 and 1993 he has been spokesperson of DELPHI - one of CERN's international collaborations at the LEP electron-positron collider. About 600 scientific papers, 6 patents and 5 books document his activities. In the last forty years more than 2 million Italian high-school pupils have studied physics on his about 30 textbooks.

Interested since the 60s in medical physics, in 1992 he created the TERA Foundation, which promotes research in oncological hadron therapy. In 2011, because of his initiative, the 'Italian National Hadron Therapy Centre for Cancer Treatment' CNAO opened in Pavia with beams of carbon ions and protons. By now more almost 6000 patients have been treated.

Kent Staley is Professor of Philosophy at Saint Louis University in St. Louis, Missouri, U.S.A. After earning a BA in Physics from Grinnell College, he earned his PhD in Philosophy from Johns Hopkins University. His dissertation on the discovery of the top quark became the basis for a book: The Evidence for the Top Quark: Objectivity and Bias in Collaborative Experimentation (Cambridge UP, 2004). His research focuses on philosophical issues pertaining to statistics, measurement, evidence, and uncertainty, with a focus on experimental physics. Together with ATLAS physicist Hugo Beauchemin, he has developed and is applying an epistemological model of inquiry, drawing upon the tradition of philosophical pragmatism.

Peter Jenni, Swiss (1948), obtained his Diploma for Physics at the University of Bern (1973) and his Doctorate at the Swiss Federal Institute of Technology in Zürich (1976). He is an experimental particle physicist. He participated in CERN experiments at the SC (1972/3), at the PS (1974/6), and at the ISR (1976/7). During 1978/9, he was a Research Associate at SLAC, USA. He became a CERN staff in 1980 with UA2 at the SPS proton-antiproton collider, working on jets, W and Z. His strong interest was with the LHC since the beginning in 1984. In 1995, after the approval of ATLAS, he was elected ATLAS Spokesperson (re-elected several times) and retired from this duty in 2009. Since his formal retirement at CERN (2013) he is an Honorary Professor at the Albert-Ludwigs-University Freiburg, Germany.

Peter Jenni received (or shared) among others the Swiss Greinacher Prize (1998), the Czech AS Mach Honorary Medal (2012), and the German Julius-Wess-Award (2013). He also received a share of the Special Fundamental Physics Prize (2013), of the EPS HEPP Prize (2013) and of the APS Panofsky Prize (2017). He has several honorary PhD degrees and was an Honorary Professor at USTC Hefei (China).

Mel Shochet received his BA in physics at the University of Pennsylvania and his PhD at Princeton University under the direction of Jim Cronin, working on CP violation in K meson decay, which Cronin and Fitch had discovered a few years earlier. When the National Accelerator Laboratory, later renamed Fermilab, was being built just west of Chicago, the University of Chicago lured Cronin away from Princeton. He brought Shochet with him as a postdoc, and Shochet remained at Chicago for his entire career. He is currently the Kersten Distinguished Service Professor of Physics Emeritus.

Shochet's early experiments at Fermilab studied particles produced at high transverse momentum in proton-proton and pion-proton interactions. He joined the colliding beam effort when Bob Wilson established it in 1976. He was a founding member of the collaboration that designed and built the CDF detector. The Chicago group worked on trigger electronics, initially for electron and jet triggers, and later the Silicon Vertex Trigger. From 1988 until 1995, Shochet was CDF co-spokesperson. Since 2004, he has been a member of the ATLAS collaboration at the LHC

Monica Pepe Altarelli was a CERN research fellow working on the ALEPH experiment at the start of the LEP programme in 1989. She was one of the lead authors of the first measurement of the number of light neutrino species, which was conducted by a small team led by Nobel laureate Jack Steinberger. As convener of the ALEPH electroweak physics analysis group at LEP1, her research focused on precision tests of the Standard Model. She was also a founding member of the LEP Electroweak Working Group, responsible for combining data from the four LEP experiments. In 2006, she joined the LHCb collaboration, where she has held several leadership roles. She continues to be involved in LHCb, searching for new physics through precision measurements on charm and beauty hadrons.

Morris Swartz finished his dissertation on fixed target Drell Yan physics at the University of Chicago in 1983. He worked as a CERN Associate/Fellow on electroweak physics and new particle searches in UA2 from 1983 until 1986 when he took a junior faculty position at Stanford Linear Accelerator Center [now the SLAC National Laboratory]. At SLAC, he worked on the project to polarize the

SLAC Linear Collider electron beam as a member of the Mark II and SLD Collaborations. He served as a co-leader of the SLD Electroweak Working group from 1991 until it ended in the early 2000s. In 1998, he moved to Johns Hopkins University and joined the CMS Collaboration where he has worked on silicon pixel tracking and has searched for new physics with various final states. He is a Fellow of the American Physical Society and has served as the Vice-Chair of the Department of Physics and Astronomy at Johns Hopkins.

Siegfried Bethke received his PhD from Heidelberg University in 1983. From 1986 to 1989, he was at the Lawrence Berkeley National Laborarory as a Lynen fellow of Humboldt Foundation. Returning to Europe in 1989, he took up the position of Heisenberg Fellow of the German Science Foundation at CERN, remaining there until 1993 when he became a Professor and Chair of physics at RWTH Aachen. In 1999, he moved to Munich as Director of the Max-Planck-Institute of Physics, where he has been Emeritus Director and Professor since 2022.Over his career, he has participated in the following collider experiments: JADE (DESY), Mark-II (SLAC), OPAL (CERN), CMS (CERN), and ATLAS (CERN), with physics interests in experimental tests of QCD, jet-physics, strong coupling, and data preservation.

Elisabetta Gallo is leading scientist at DESY and full professor at the University of Hamburg. She has been working at the ZEUS experiment at HERA from 1992 to 2007, being also spokesperson of the ZEUS Collaboration in 2006-2007. At HERA she has covered a wide range of topics, from structure functions to diffraction and to searches. Presently she is a member of the CMS Collaboration, where she was also chair of the Collaboration Board until September 2025, and mainly focussing on Higgs physics.

Keith Ellis is an emeritus professor of Physics at the Institute for Particle Physics Phenomenology (IPPP), University of Durham, UK. He obtained a doctoral degree from Oxford University for work performed at the University of Rome. After a flurry of post-doctoral positions around the world (Rome, Imperial, MIT, Caltech, CERN), he moved to Fermilab in 1984. At Fermilab he contributed theoretical support to the Tevatron program and served as head of the Theory group from 1993-2004. In 2015 he moved to Durham as director of the IPPP. He has served as chair of the CERN scientific policy committee. He is a fellow of the APS (1988) and the Royal Society (2009) and is recipient of the Sakurai prize (2009), Humboldt research award (2015) and the IOP Dirac medal (2019).

Ellis was a pioneer in the field of precision QCD either at next-to-leading order or with the resummation of explicit large logarithms. Examples of such calculations are the QCD radiative corrections to the Drell-Yan process, jet structure in e+e- annihilation, parton-parton scattering for jet studies and top pair production. He has also studied single boson (W,Z,H) + jet processes and vector boson pair production.

Bryan Webber is Emeritus Professor of Theoretical Physics at the Cavendish Laboratory, University of Cambridge. After graduating from Oxford University, he obtained a PhD in experimental particle physics from the University of California at Berkeley. He then switched to theoretical physics as a post doc at LBNL. In 1971 he returned to the UK, where he has remained at the Cavendish Laboratory apart from several extended leaves of absence at CERN. From 1973 until retiring in 2010 he was head of the Cavendish theoretical high-energy physics group. His main research contributions have been in jet physics and the computer simulation of high-energy collisions. Together with Keith Ellis and James Stirling, he is co-author of the book QCD and Collider Physics. In 2001, he was elected a Fellow of the Royal Society.

David Cassel received his PhD degree from Princeton. As a postdoc at CERN he participated in one of the two experiments that first observed CP violating time-dependent interference in K^0S and K^0L decay to π+ π-. Afterwards, he began a career of teaching and research at Cornell University, initially studying photoproduction and electroproduction at the Cornell 10 GeV Synchrotron. Cassel took part in the construction of the Cornell Electron Storage Ring, CESR, and of CLEO detectors.

His CLEO involvement also included participation in measurements of semileptonic decays of B mesons to charmed mesons, and the discovery of charmless semileptonic B decay and of radiative penguin B to $K^*\gamma$ decays. After completion of CLEO data taking, he joined CMS with Cornell colleagues.

During sabbatical leaves he participated in TASSO and ZEUS at DESY, and in ALEPH and CMS at CERN.

Paul Grannis received a PhD from the University of California at Berkeley in 1965. Following a Berkeley postdoc, he joined the faculty at Stony Brook University in 1966. He retired from the teaching faculty as Distinguished Professor in 2007 but continues as Research Professor.

In the early 1970s Grannis was a member of the Pisa-Stony Brook ISR experiment that discovered the rising total pp cross section, jointly with the CERN-Rome experiment. He was the spokesman of the DZero experiment at the Fermilab proton-antiproton collider from its inception in 1983 through early data taking in 1993, continued as co spokesman with Hugh Montgomery until 1996, and served again as co-spokesperson with Dmitri Denisov since 2014. He received the American Physical Society's Panofsky Prize in 2001 in recognition of his DZero leadership and, on behalf of the members of the collaboration, accepted the European Physical Society Prize awarded jointly to CDF and DZero in 2019. He has worked since 1996 to develop an e+e- Higgs Factory Collider.

Kostas Gavroglu is an emeritus professor of History of Science at the University of Athens. He received his doctorate in theoretical high energy physics from imperial College under the supervision of Tom Kibble. His research interests are the history of low temperature physics, the history of quantum chemistry, the formation of physical chemistry as well as issues related with the appropriation of scientific ideas and practices by the European periphery during the 18th century. In 2020 he received the Gustav Neuenschwander award from the European Society for the History of Science. He was Minister of Education and Research between 2016-2019.

James Gillies received a doctorate from the University of Oxford in 1989 for work on the EMC experiment at CERN, before going on to spend five years at the Rutherford Appleton Laboraotory working on the OPAL experiment. After a two year interlude as Head of Science with the British Council in Paris, he returned to CERN in 1995 as a science writer. He was Head of the Organization's Communications group from 2003 to 2015, before turning his attention to environmental reporting at CERN, while also assisting the SESAME laboratory in Jordan with communications during its start-up phase. Over his long career at CERN, he developed an interest in the history of the field, In 2018, he published a history of CERN, 'CERN and the Higgs Boson: The Global Quest for the Building Blocks of Reality'. He recently had the privilege to work with the late Herwig Schopper on his memoir, published on the occasion of his 100th birthday in 2024.

Sudeshna Datta-Cockerill's career at CERN spanned 41 years, mainly in the Human Resources field. She retired from CERN in April 2018, after her final role as Ombudsperson where she provided confidential, independent, neutral & informal dispute resolution guidance & support for the Organization.

Previously, she worked as a senior HR professional, spearheading the development & implementation of strategic initiatives related to leadership development, performance management, equal opportunities and diversity. Her various roles have included HR Advisor, Equal Opportunities Officer, Head of Learning & Development, Diversity Programme Leader & finally CERN Ombudsperson.

After retiring from CERN, Sudeshna worked as an independent trainer, facilitator, & consultant for various UN-related agencies (IOM, WFP...), in the fields of conflict resolution, communication skills & respectful workplace development.

She is a Swiss national of Indian origin, and comes from a multi-lingual, multi-cultural background, having lived and studied in India, the USA & Europe.

Neil Calder was Head of the Head of CERN Press Office from 1989 – 2001, when he moved to SLAC to take up a position as Director of Communication. Returning to Europe in 2008, he took on the role of Head of Communication for ITER, a role he fulfilled until 2010. In 2011, he moved to Japan as Vice President Communications at the Okinawa Institute for Science and Technology. Where he remained until his retirement in 2018.

Lyn Evans Born in 1945, Lyn Evans has spent his whole career in the field of high energy physics and particle accelerators, participating in all the great projects of CERN since his arrival in the 1969, immediately after graduating from the University of Swansea with a PhD in physics. Since 1993 he led the team that designed, built and commissioned the LHC. He is presently a visiting professor at Imperial College London. Among his many honours he is a Fellow of the American Physical Society and a Fellow of the Royal Society. He was awarded a Special Fundamental Physics Prize in 2013 for his contribution to the discovery of the Higgs boson.

Catherine Westfall is Professor Emerita at Michigan State University. For the last 40 years she has studied the history of large-scale science, focusing in particular on the development of accelerators, the organization of scientific projects, and knowledge production in nuclear and particle physics in the post-WWII period. Her articles and books include (with co-authors) Fermilab: Physics, the Frontier, and Megaphysics.

Martin Wilson started work in the Nuclear Power Industry, but shortly moved to the Rutherford Laboratory where he initially worked on producing pulsed high magnetic fields by capacitor discharge. He then joined the Superconductivity Group working on the idea of building a superconducting synchrotron. In order to avoid flux jumping, minimize ac losses and reduce field perturbations, the Group developed (in collaboration with IMI Titanium) the filamentary superconducting wires which are now used universally for magnet making. Rutherford Cable was also developed by this group and has been used in every superconducting synchrotron built so far.
Moving to Oxford Instruments, Martin supervised two industrial accelerator projects using superconductivity. Firstly Helios was a £10m compact superconducting storage ring X-ray source for use in microchip lithography. Secondly Oscar was a compact medical cyclotron for producing PET isotopes and weighing only ~ $^{1}/_{10}$ as much as a conventional machine.
At CERN, he worked on the stability of Rutherford cables for use in the LHC. Returning to Oxford he spent his final years with the company trying to commercialize the use of high temperature superconductors HTS in magnets (he failed).

Philippe Lebrun With a background in applied superconductivity and cryogenics, Philippe Lebrun has worked since the mid-1970s in the development, construction and management of large particle accelerator projects at CERN, where he led the "Accelerator Technology" department during the construction of the Large Hadron Collider (LHC). He was also in charge of bilateral and multilateral international scientific collaborations, director of the Joint Universities Accelerator School (JUAS), president of the International Institute of Refrigeration (Paris) and of the European Scientific Institute (Archamps).

Lucio Rossi is full professor of Experimental Physics at University of Milano. He began his career at University of Milan, working on large scale superconductivity for particle accelerators and detectors. He contributed to the Italian Superconducting Cyclotron, the thin solenoid of the ZEUS detector (HERA, Desy), the development of Nb_3Sn superconductor and led the LHC dipole first prototypes and the ATLAS BT superconducting cable and coils construction till 2001. In 2021 he proposed and led the construction of IRIS, a distributed Research Infrastructure in Italy, to support superconductivity R&D for next generation colliders and societal applications.

He moved to CERN, from 2001 to 2020, where he led the LHC superconductors and main magnets construction and eventually all LHC magnets operation and consolidation till 2011. In 2010 he proposed the High Luminosity LHC design study that, approved for construction in 2016, he led till 2020, when he retired from CERN and returned to the University of Milano and INFN. Main honours: the *IEEE- Council of Superconductivity Award* in 2007; IEEE fellowship in 2013; the *European Physical Society Rolf Wideröe Prize* in 2020; the *Fermi Prize, by the Italian Society of Physics (SIF)*, in 2023.

Hasan Padamsee is a physicist and retired professor from Cornell University with a PhD from Northeastern U. He has been involved in prize-winning scientific research at Cornell for over 40 years in the field of particle accelerators. At Fermilab he was Division Director and Chief Technology Officer for two years. At present he is the Chair of the Scientific Advisory Board for the *Superconducting Quantum Materials Science Center* (SQMS) at Fermilab. He has written three books on "RF Superconductivity" with Wiley and one book "Unifying the Universe" with Taylor and Francis for non-science students. His side passion is playwriting with works that cross boundaries between science and the human experience.

He was appointed Fellow of the American Physical Society in 1993, awarded the 2012 Particle Accelerator Science and Technology (PAST) Award and the American Physical Society's 2015 Robert Wilson Prize in Accelerator Physics, "*For his leadership and pioneering world-renowned research in superconducting radiofrequency physics…which contributed to remarkable advances in the capability of particle accelerators.*" At Cornell, he taught a popular physics course for non-science students called "Physics of Heaven and Earth." He has published "Unifying the Universe" (with Francis and Taylor, UK) to bring the adventures of scientific development to the general audience as an outreach effort.

Alexander Skrinsky On January 15, 1936, Alexander Nikolaevich Skrinsky was born in Orenburg. After finishing his secondary schooling in Gorky, he enrolled at Moscow State University, where he eventually earned his degree in 1959.

In 1957, A. N. Skrinsky, then a fourth-year student at Moscow State University's Faculty of Physics, was accepted into G. I. Budker's laboratory, which was a division of the USSR Academy of Sciences' Institute of Atomic Energy, led by I. V. Kurchatov (now the Kurchatov Institute). The Budker Institute of Nuclear Physics of the Siberian Branch of the USSR Academy of Sciences, which developed from Budker's lab, has been linked to Skrinsky's scientific career since 1962 (From 1977 to 2015, he was its director; after that, he was its scientific supervisor). In 1966, he earned a Doctor of Sciences degree in Physics and Mathematics, and in 1969, he was appointed Professor.

He was elected a Corresponding Member on November 26, 1968, and a Full Member (Academician) of the USSR Academy of Sciences (now known as the Russian Academy of Sciences since 1991) in the Department of Nuclear Physics (High Energy Physics) on December 24, 1970, when he was 34 years old.

Akira Yamamoto is Professor Emeritus and Diamond-Fellow of High Energy Accelerator Research Organization, KEK, and a COAS at CERN, has been contributing to superconducting magnet and RF technologies applied for physics experiments and particle accelerators. He was responsible in development of CERN LHC final focusing magnet system on collaboration with Fermilab. He led ATLAC detector central solenoid development with thin/transparent solenoid technology by using Al-stabilized superconductor. He also led a physics program using scientific ballooning to search for primordial antiparticle and/or matter by using a uniquely transparent superconducting solenoid technology integrated in high-energy physics as the most critical technology. Today, he will provide overview on the superconducting detector magnet technology outstandingly advanced in 1980 – 2000.

Michel Spiro is Emeritus Scientific Adviser at University Paris – Saclay. He is known for his work in UA1 ppbar experiment (construction of the central electromagnetic calorimeter and then missing energy road analysis for the discovery of the W bosons), in GALLEX solar neutrino radiochemical experiment (calibration radioactive source) and in EROS (spokesperson of this dark matter Massive Objects search in the halo of our galaxy through microlensing).

He has been Director of DAPNIA (CEA Saclay) (2002-2003) and then Director of IN2P3/CNRS (2003 – 2010), President of CERN Council (2010 – 2012), President of IUPAP (2019-2024) and is now Chair of the board of the CERN & Society Foundation since 2020.

Robert Klanner received his PhD in 1973 from the Ludwig-Maximilian University Munich, with a thesis on the first 3-body partial-wave analysis using data from a counter experiment. From 1973-1975 he was postdoc at the University of Illinois at Urbana-Champaign. From 1975-1984 he worked at the Max Planck Institute for Physics in Munich, where he contributed to the development of silicon-strip detectors with 5 µm resolution, constructed the NA11 vertex telescope for studying charm-particles in hadronic reactions and developed the first 2D silicon drift-chamber. He also served as Spokesperson of the CERN-Experiments NA11 and NA32. From 1984-1996 he worked as Senior Scientist at DESY, where he contributed to the preparation of the HERA-physics programme, coordinated the construction of the ZEUS uranium calorimeter, which achieved a hadronic energy resolution of 3% / √E [GeV] and served as Spokesperson of the ZEUS-Experiment. From 1996 until his retirement in 2010, he held the position of a Professor at Hamburg University, where he continued to work on the ZEUS-Experiment and on silicon detectors. From 1999-2005 he was Director for Particle Physics at DESY.

David Nygren Over a long career, David Nygren has made useful contributions to what he refers to as the Art of Experiment, spanning work in colliding beam, fixed target, neutrino astrophysics and rare decay searches such as neutrinoless double beta decay. After post-doctoral work at Columbia with Jack Steinberger, most of his career was at the Lawrence Berkeley National Laboratory, where he conceived the Time Projection Chamber idea. A member of the National Academy of Sciences, he is currently Presidential Distinguished Professor at the University of Texas at Arlington, looking for new ways to cause trouble.

Tord Ekelöf is Emeritus Professor in Elementary Particle Physics at Uppsala University. He has since 1968 participated in the development, build-up, running and data analysis of experiments at the PS, SPS, LEP and LHC accelerators at CERN of which he was Spokesperson of a small-angle scattering experiment at the SPS. He has actively contributed to the development and realization of new particle detectors in these experiments, in particular low-energy recoil-detectors for the experiments at PS and SPS and the Ring Imaging Cherenkov particle identification detector for the DELPHI experiment at LEP. He has been a member of the ECFA, SPSC and LEPC committees at CERN, chaired the international ICFA Instrumentation Panel, co-initiated the Middle East Synchrotron Light Source SESAME and co-initiated and led the Swedish LHC consortium and the NorduGrid project. He has contributed to the creation and management of the FREIA Accelerator and Instrumentation Development Laboratory at Uppsala University and is currently leading accelerator development projects there. He co-initiated and is currently Scientific Leader of the EU-supported ESS-based neutrino Super Beam design study ESSnuSB.

Lucie Linssen is a senior CERN physicist, specialised in detector technologies. She participated in various experiments, including UA4, UA2, PS172, RD1 and CMS. In the1990s she participated in the NOMAD neutrino experiment, where she was responsible for the muon detectors and later for the overall technical coordination. She was deputy department leader of the CERN physics department (2004-2007), and took leading roles in setting up large collaborations for EU-funded projects on detector R&D.

From 2009 onwards she coordinated the CERN-hosted study aimed at developing the physics potential, detector design and detector R&D for the Compact Linear Collider (CLIC), a future TeV-scale e^+e^- collider under development. She was the spokesperson of the CLICdp collaboration from 2012 to 2017.

Leo Stodolsky is an American particle and astroparticle physicist. He was awarded a PhD from the University of Chicago in 1964 for a study of the production of Δ resonance under the supervision of J J Sakurai. After spending time at Michigan, Brookhaven, Paris and Stanford, he moved to Munich in 1973 as a director in the theory group at the Max Planck Institute for Physics, where he has been a Director Emeritus since 2005. In 1988-1989, he worked at the Institute for Advanced Study in Princeton.

His main research interests at present are in the study of the early Universe, developing techniques based on neutrino observation to probe the universe before it became transparent to light. In 1988, he determined limits for neutrino velocity from observations of supernova SN 1987A. He has also made important contributions in the field of cryogenic detectors used in serarches for dark matter candidates, using detectors based on calcium tungstate and other materials for the CRESST experiment, led by the Max Planck Institute and running in the Gran Sasso laboratory.

Hans von der Schmitt After studying physics and mathematics at the University of Mainz, Hans von der Schmitt received his PhD in J/Psi physics at DESY's DORIS facility in 1975. He then moved back to Mainz, where he was involved in the design and construction of the Mainz Microtron stage 1 and 2, implementing a scalable control system based on message passing. The next step of his career took him to CERN and DESY, where he introduced VME multi-microprocessor systems at UA1, JADE and OPAL. On the latter, he developed a flash ADC readout system for the experiment's central tracker, implementing a real-time Fortran-77 compiler. He received his habilitation in experimental physics in 1991, before moving to industry in 1993, where he spent five years implementing software for telecom and utility networks. In 1998, he was appointed Technical Director at DESY. Following a year exploring the mountains of Asia and South America, he moved to the Max Planck Institute for Physics in 2004, where he worked on offline software and detector commissioning and databases for ATLAS, as well as conducting an LHC splice resistance analysis. He retired in 2016.

Veljko Radeka A graduate of the University of Zagreb, Veljko Radeka is a Croatian-American electronics engineer who joined the Brookhaven National Laboratory in 1962 as a visiting scientist. Becoming a member of staff in the laboratory's Instrumentation Division in 1966, he was appointed Division Head in 1972, holding the position for four decades.

His work has been instrumental in the advancement of electronics capable of extracting signal from background in areas such as solar neutrino experiments, thus contributing to the work that won Ray Davis the Nobel Prize in 2002. He also played a key role in the development of liquid argon calorimetry, and has worked actively on applying particle detection technologies to medical imaging, notably contributing to the development of a combined PET/MRI scanner. He is a life-long Fellow of the IEEE, and a Fellow of the APS.

René Brun After his PhD obtained at the university of Clermont-Ferrand, René Brun started his long career at CERN in 1973, working many years with Carlo Rubbia at the ISR experiment R602, then NA4 at the SPS. In charge of detectors simulation and data analysis, he developed the HBOOK, PAW and GEANT systems. Leader of the software group, he welcomed Tim Berners Lee who created the Web in 1989. In 1995, the ROOT data analysis system was created and then used at a large scale in the scientific fields. René is now CERN emeritus.

Kurt Hübner is an accelerator physicist retired from CERN. He has been Director of Accelerators from 1995 to 2001, Leader of the Proton Synchrotron (PS) Division from 1991 to 1994 at CERN. Studies at the Technische Hochschule Wien in mechanical engineering (Dipl.Ing.) and technical physics (Dr.techn.). From 1964 at CERN with work on 2 MeV CERN Electron Storage and Accumulation Ring (CESAR), the 2x25 GeV Intersecting Storage Rings (ISR) and the Large Electron-Positron storage ring (LEP) with emphasis (i) on the use of the existing proton accelerators as LEP injectors; (ii) on the upgrading of LEP from Z^0 peak to the final 2x105 GeV. Work for the CERN Neutrino Beam to Gran Sasso (CNGS) until approval.

William Thomas is the Spencer R. Weart Director of Research for History, Policy, and Culture at the American Institute of Physics, overseeing AIP's 60-year-old history program and a new portfolio in policy research and analysis. He holds a PhD in the history of science from Harvard University and is the author of *Rational Action: The Sciences of Policy in Britain and America, 1940–1960*, a book on the links between scientific advice and the field of operational research. Prior to his current role, he was a writer for seven years with AIP's *FYI* science policy news service.

Robert P. Crease is a Professor in the Department of Philosophy at Stony Brook University, where his teaching focuses on science and society issues. He is a Fellow of the American Physical Society and the Institute of Physics. In 2023-4 Crease had a National Science Foundation (NSF) Award to study "Social and Political Dynamics of Lab-Community Relations." In 2021 he won the William Thomson, Lord Kelvin Medal and Prize (IOP) for "describing key humanities concepts for scientists and explaining the significance of key scientific ideas for humanists." Crease is former co-editor-in-chief of *Physics in Perspective*, and for 25 years has written a column, "Critical Point," on historical and philosophical dimensions of science for *Physics World.* He edited *Between Science and Industry: Institutions in the History of Materials Science* (World Scientific 2024). His authored books include *Making Physics: A Biography of Brookhaven National Laboratory 1946-1972* (University of Chicago Press 1999); *Philosophy of Physics: A New Introduction* (IOP Press 2023); and *The Leak: Politics, Activism, and Loss of Trust at Brookhaven National Laboratory* (MIT Press 2022).

Steve Holmes received his PhD in Physics from Harvard University in 1976. His early career was spent in experimental elementary particle physics, but he developed an interest in accelerator physics in the early 1980s. Following seven years at Columbia University he joined the staff of the Fermi National Accelerator Laboratory in 1983 to participate in the construction of the Antiproton Source. He subsequently worked on nearly all accelerators within the Fermilab complex, in both technical and management positions, while holding major responsibilities for the operation of the Tevatron Collider and the construction and operation of the Main Injector/Recycler complex. He served as Head of the Fermilab Accelerator Division and as Project Manager for the Main Injector construction project in the 1990s. He held the position of Fermilab Associate Laboratory Director for Accelerators from 1999-2010. He served as Project Director for the ongoing PIP-II project from its inception until his retirement from Fermilab in 2018. He is a Fellow of the American Physical Society, a former chair of the APS Division of Physics of Beams, and a recipient of the Robert R. Wilson Prize.

Tor Raubenheimer is a professor of Particle Physics and Astrophysics at Stanford University studying the challenges in accelerator systems ranging from Linear Colliders to Free Electron Lasers (FELs) to Plasma Accelerators. Tor started his career working on the SLAC Linear Collider (SLC) in 1985 and continued to work on the SLC as a graduate student, post-doc, and then a Stanford faculty member until operations concluded in 1998.

Since then, he worked on the Next Linear Collider project and was a member of the ILC Global Design Effort. He also helped launch the SLAC FACET Test Facility as well as SLAC LHC Accelerator Research (LARP) R&D efforts. Subsequently, he led the physics design of the LCLS-II and its upgrade, the LCLS-II-HE, a high-power X-Ray FEL based on a 4 – 8 GeV Superconducting RF (SRF) linac based on ILC SRF technology. Most recently, he has been working on the FCC at CERN. He has also been a member of review panels for the US National Academies and the US DOE including many iterations of the HEP Particle Physics Project Prioritization Panel (P5). He has been a member of many international accelerator advisory committees and is currently the chair of the Machine Advisory Committee for the Electron Ion Collider at BNL.

Victor Matveev, member of Russian Academy of Sciences, specialist in Quantum Field Theory and Particle Physics. He is known for his theoretical works, devoted to the Color Quark Model and High Energy Physics, and by his leaderships in development of the Moscow Meson Factory at Troitsk near Moscow and in creation underground Baksan Neutrino Observatory and the deep underwater neutrino detector at the lake Baikal.

He has been Director of the Institute for Nuclear Physics of RUS (1987-2011), Director of JINR in Dubna (2012-2020). At present, the Scientific Leader of JINR (2021) and Secretary of the Nuclear Physics Division of RUS.

Ferdinand Willeke received his PhD with a thesis in condensed matter physics from the Freie Universität Berlin in 1980. From 1980 to 2009, he was a Staff Accelerator Scientist at Deutsches Elektronen Synchrotron, DESY, in Hamburg, notably having responsibility for operations and development of the lepton-proton collider, HERA, from 1995 to 2007. He spent a year as a guest scientist at Fermilab in the USA from 1983 to 1984, working on Tevatron commissioning.

Jonathan Dorfan earned his BSc in physics and applied mathematics at the University of Cape Town in 1969 and his doctorate in experimental particle physics from UC Irvine in 1976, at which time he joined SLAC as a junior scientist working under Martin Perl and Burton Richter. Dorfan was promoted to Stanford associate professor in 1984, full professor in 1989, SLAC associate director in 1994 and SLAC's third director in 1999.

Dorfan was a member of Mark II at the SPEAR and PEP and served as the collaboration's scientific spokesman from 1980-84. From 1982-89, Dorfan was scientific spokesman for the Mark II detector at the SLC. Dorfan led the team that designed and built the SLAC B Factory accelerator complex, PEP-II and was, in addition, in charge for the last three years, of the Babar detector construction project.

Dorfan placed considerable emphasis on the importance of international cooperation in science broadly. His scientific statesmanship as Chairman of ICFA put in place the management framework and collaboration model for the International Linear Collider (ILC).

In 2010, Dorfan moved to Okinawa Japan where he became the inaugural President of the Okinawa Institute of Science and Technology (OIST) Graduate University.

Takahiko Kondo is Emeritus Professor of KEK. In 1970s, he started his research at University of Pennsylvania and later at Fermilab. In 1980s, he led a construction of the VENUS detector for the TRISTAN collider, while heavily involved in detector plan and R&D for SSC. He led the Japanese team during the ATLAS construction phase. He continues his work in monitoring radiation damage of the ATLAS silicon strip detector.

Luciano Maiani is Emeritus Professor in Theoretical Physics, Università di Roma La Sapienza, and Emeritus of CERN. He is known for his works in Theoretical Particle Physics, in particular the prediction of a fourth quark, the Charm quark (the basis of the GIM mechanism) proposed with Sheldon Glashow and John Iliopoulos in 1970 and later observed experimentally. He has been President of the Italian Institute of Nuclear Physics (1993-1998), Director General of CERN (1999-2003) and President of the Italian National Research Council (2007-2011). At present, he works actively in Hadron Spectroscopy.

Richard Dawid is professor of philosophy of science at Stockholm University. He holds a PhD in theoretical physics from the University of Vienna. After some years as a phyisicist at the TU Munich and the Lawrence Berkeley Laboratory, he switched to philosophy in 2000. He worked as a philosopher of science at the University of Vienna and the MCMP Munich before coming to Stockholm in 2016.

Dawid's work focuses on philosophical aspects of contemporary theories in high energy physics and cosmology. His concept of non-empirical theory confirmation, developed in the book "String theory and the scientific method" (CUP 2013) and in a number of articles, introduces a broader perspective on theory confirmation in fundamental physics and beyond. Other topics in the philosophy of physics investigated by Dawid include Everettian quantum mechanics, issues of data analysis in high energy physics, the philosophical impact of string dualities, the cosmological multiverse and anthropic reasoning. In the general philosophy of science, Dawid has worked on Bayesian confirmation theory and various aspects of the scientific realism debate.

John Ellis is currently the Clerk Maxwell Professor of Theoretical Physics at King's College London, having previously obtained his PhD from Cambridge University in 1971 and worked at CERN in Geneva from 1973 to 2011, where he was the Theory Division leader from 1988 to 1994. His research interests focus on the phenomenological aspects of elementary particle physics and its connections with astrophysics, cosmology, general relativity and quantum gravity.

In a pioneering study in 1976 with Graham Ross and Mary K Gaillard, he showed that 3-jet events in e^+e^- collisions would be a good hunting ground for the gluon. This work was vindicated in 1979 with the discovery of the gluon at DESY, and laid the basis for many QCD studies at LEP. In the 1970s Ellis also pioneered work on experimental signatures for the Higgs boson – work that proved invaluable for the ATLAS and CMS collaborations at the LHC.
Much of his current work relates directly to experiment, interpreting results of searches for new physics and exploring the physics capabilities of future experiments. He is currently a member of the AION Collaboration that plans to use atom interferometry to search for ultralight cold dark matter and gravitational waves, and is active in studies of possible future colliders. Among other honours, he was elected a Fellow of the Royal Society in 1985.

Savas Dimopoulos holds the Hamamoto Chair in the School of Humanities and Sciences at Stanford University. He is known for his novel proposals addressing the hierarchy problem, including Extended Technicolor (1979), the Supersymmetric Standard Model (1981), Large Extra Dimensions (1998), and Split Supersymmetry (2004). As a student (1978), he was one of the early proponents of primordial baryogenesis. In 2007, he proposed a new class of gravitational wave detectors based on Atom Interferometry, now the basis of the MAGIS and AION projects in the US and UK. In 2009, he proposed searching for axions and other light bosons through Black Hole Superradiance, an approach now pursued by LIGO/Virgo.

He is now proposing novel detectors in special quantum configurations, approximating Dicke states, which can greatly enhance the detection prospects for dark matter, the primordial cosmic neutrino background, and nuclear reactor neutrinos. He has received the Tomassoni Award, and the Sakurai Prize "for his creative ideas on dynamical symmetry breaking, supersymmetry, and extra spatial dimensions, which have shaped theoretical research on TeV-scale physics, thereby inspiring a wide range of experiments." He is a member of the U.S. National Academy of Sciences, the American Academy of Arts and Sciences, and was featured in the documentary Particle Fever.

Wolfgang Lerche received his doctorate from the Max Planck Institute in Munich under the supervision of Roberto Peccei in 1985 for a thesis on the supersymmetric Goldstone mechanism. From 1985 to 1988, he was a Fellow and then an Associate in the Theory Division at CERN. In 1986, he was awarded the Max Planck Society's Otto Hahn Medal. In 1988, he moved to Caltech, where he worked as a Senior Research Fellow until 1991, when he returned to CERN as a member of staff. In 1998 he was also made an honorary Professor of Theoretical Physics at the University of Heidelberg. From 2014 to 1015, he served as Head of CERN's Theory Department. In 2024 he received the Frontiers of Science Award from the International Congress of Basic Science in Beijing.

Riccardo Barbieri Born in Parma, Italy on November 3, 1944. PhD in Physics at the Scuola Normale Superiore in Pisa in 1969, Riccardo Barbieri is Emeritus Professor of Theoretical Physics at the Scuola Normale Superiore.

Riccardo Barbieri has written about 200 papers in theoretical and phenomenological particle physics, mostly focussing on different aspects of Beyond the Standard Model Physics.

Christoph Rembser had his first high-energy experience as a CERN summer student in 1989. Since then he has worked on the ZEUS and OPAL experiments, gaining expertise in various types of detectors and searching for new physics phenomena, especially supersymmetric particles. After an intermezzo in 2004 and 2005 at the University of Erlangen as a professor for astroparticle physics and the ANTARES experiment, he returned to CERN to find SUSY with the ATLAS detector at the LHC. From 2008 until 2013 he served as project leader for the ATLAS Inner Detector and the Transition Radiation Detector. From 2016 to 2025 he was leader of the CERN ATLAS team, which plays a mayor role in the physics exploitation of the ATLAS data and operation, maintainance and upgrade of the ATLAS experiment. He got the full scope of physics opportunities at CERN as physics coordinator (2005 - 2007) for the CERN PS and SPS physics programme and as scientific secretary of the SPS and PS experiments Committee (2010 - 2021). Both proved to be excellent opportunities to learn and contribute to finding SUSY beyond the colliders. As member of the OPAL long-term Editorial Board, he hopes that LEP data is preserved and can still be useful for physics.

Helen Quinn is Professor Emerita of Particle Physics and Astrophysics at SLAC National Accelerator Laboratory. She completed her PhD in physics at Stanford in 1967. She was a postdoc at DESY (Deutsches Elektronen Synchrotron) and 1968 and 69, unemployed for 1970-71, and held appointments from Research Fellow to Associate Professor at Harvard from 1971-76. In the spring 1976 she took leave to work in the Stanford Physics Department supported by her Sloane Fellowship, where she worked with Roberto Peccei on several papers. She was a staff scientist at SLAC from 1977 until 2003 when she became a faculty member after her election to the National Academy of Sciences. She has received many awards for her research contributions.

She was President of the APS in 2004. She served as Chair of the US National Academy of Sciences Board on Science Education (BOSE) from 2009-2014. She was the chair of the BOSE study committee that developed "A Framework for K-12 Science Education" which has influenced pre-college science teaching and learning world-wide. From 2015 to 2018 she was a member of the initial *Comision Gestora* of the National University for Education (UNAE) in Ecuador.

Roger Highfield is the Science Director of the UK's Science Museum Group, Visiting Professor of Public Engagement at the Dunn School, University of Oxford and UCL, and member of the UK Research and Innovation's Medical Research Council and Building a Green Future Advisory Board. Previously, Roger was Director of External Affairs at the Group, editor of New Scientist magazine and the science editor of the Daily Telegraph . He is the Honorary President of the Association of British Science Writers (ABSW) and has written or coauthored ten popular science books.

Marjorie Bardeen In 1982 at the invitation of Leon Lederman, Marjorie G. Bardeen joined a team setting up K-12 education programs at Fermi National Accelerator Laboratory. She was program lead and later manager of the Fermilab Education Office. She helped establish a non-profit organization that raised funds and conducted the Lab's first teacher professional development programs. In January 2017, she stepped down as manager and retired in January 2018. She continues as Co-PI and Spokesperson for the QuarkNet Collaboration. Her academic background is in mathematics. She volunteered for many years helping young students learn math and taught at the middle school level.

Paola Catapano A graduate in conference interpreting from the University of Trieste, Paola Catapano joined CERN in 1990 as an assistant to Nobel laureate Carlo Rubbia, during his mandate as CERN

Director General. She later earned a Master's in Science Journalism. She later was appointed Section leader of the Visits and Exhibitions section in the newly created Communications group during the mandate of Chris Llewellyn Smith. She spent all her career at CERN thereafter in the Communications area. She currently leads the Editorial Content Production section in the ECO (Education Communications and Outreach) group in the IR department. She has chronicled the LHC journey from start up to Run 2, interviewed more than 30 Nobel laureates, contributed articles to the CERN Courier and authored and produced film and documentaries featuring CERN and related activities.

Lucy Hawking is a children's science author and communicator. She uses adventure and fantasy storytelling to convey scientific information to young readers in an engaging and accessible way. She has written 13 books now for primary age students, covering different fields of science but narrated through character, action and adventure. Her books also include short essays written for young readers by a wide range of scientists, describing their field of research in simple language. She has also worked in a variety of media including animation and virtual reality. Her father, Professor Stephen Hawking, claimed that he wrote A Brief History of Time to pay her school fees, a version of events that Lucy does not entirely believe to be true.

Barry Barish received his PhD in experimental particle physics from UC Berkeley in 1963, and has spent most of his career at Caltech. His research has spanned many key areas of particle physics and beyond. He conducted pioneering experiments at Fermilab on high-energy neutrino collisions that uncovered the quark substructure of the nucleon and helped establish the weak neutral current. In the 1980s, he co-led the MACRO experiment at the Gran Sasso, with Enzo Iarocci, that searched for exotic particles like magnetic monopoles and provided crucial evidence for neutrino mass and oscillations. Then, with Bill Willis, he led the design of the proposed GEM detector for the Superconducting Super Collider. Finally, beginning in 1994, he led the development of the Laser Interferometer Gravitational-wave Observatory (LIGO) that made the historic first detection of gravitational waves in 2015. In 2017, he was awarded the Nobel Prize in Physics along with Rainer Weiss and Kip Thorne "for decisive contributions to the LIGO detector and the observation of gravitational waves". He continues to pursue research with gravitational waves.

Antonis Antoniou is a philosopher of physics at the National and Kapodistrian University of Athens, where he works as an ERA Postdoctoral fellow in the EU funded project "ANDROMEDA: The epistemology of dark matter and modified gravity". His research interests primarily concern philosophical questions about the methodology of high-energy physics and cosmology, especially on the topics of dark matter and modified gravity. He is also interested in pragmatic interpretations of natural laws in physics, and questions on the initial conditions of the universe.

Alan Guth is the V.F. Weisskopf Professor of Physics at the Massachusetts Institute of Technology. He received his S.B., S.M. (1969, with Aron Bernstein), and Ph.D. (1972, with Francis Low) from MIT. He then held postdoctoral positions at Princeton, Columbia, Cornell, and SLAC, before returning to MIT as a faculty member in 1980.

Guth's early work involved various aspects of particle theory, including the Bethe-Salpeter equation, lattice gauge theories, and magnetic monopoles. While at Cornell in 1978--79, he was persuaded by Henry Tye, then also a postdoc at Cornell, to join him in studying the production of magnetic monopoles during the big bang, in the context of grand unified theories. That work led directly to Guth's proposal of cosmic inflation in 1980.

Since then Guth's efforts, with collaborators, have involved further work on inflation, including density perturbations and eternal inflation, and questions such as whether or not it is in principle possible to create an inflationary universe "in the lab". He has also worked on other topics: closed timelike loops in general relativity, axions in cosmology, tests of Bell's inequality, and the arrow of time. He is currently working on a numerical simulation of the production of primordial black holes in the context of a type of inflation called hybrid inflation.

Michael S. Turner is a visiting Professor of Physics and Astronomy at UCLA and the Rauner Distinguished Service Professor (emeritus) at UChicago. Previous positions include Fermilab, Assistant Director for the Mathematical and Physical Sciences at the U.S. NSF, and President of the American Physical Society. Turner's contributions include predicting cosmic acceleration and coining the term dark energy, showing how quantum fluctuations evolved into the seed perturbations for galaxies and other cosmic structures during inflation, and several key ideas that led to the cold dark matter theory of structure formation. Turner is a Fellow of the American Astronomical Society, the American Physical Society, the American Association for the Advancement of Science, and the American Academy of Arts and Sciences, and was elected to membership in the National Academy of Sciences in 1997 and the American Philosophical Society in 2017.

Turner played a major role in bringing together elementary-particle physics and astrophysics/cosmology, through his scientific contributions, his students, and his leadership. *The Early Universe,* written with E.W. Kolb, has served as the handbook for the field, and the National Academies study, *Quarks to the Cosmos,* he led laid out the strategic vision. He just co-chaired the National Academies study *Elementary-particle Physics: The Higgs and Beyond*, a 40-year strategic vision for the field in the U.S.

Edward (Rocky) Kolb is the Arthur Holly Compton Distinguished Service Professor of Astronomy and Astrophysics at the University of Chicago, where he is also a member of the Kavli Institute for Cosmological Physics and the Enrico Fermi Institute. He was a pioneer in the field of particle cosmology. He was the first co-director of NASA/Fermilab Theoretical Astrophysics Group and later served as the first director of the Fermilab Particle Astrophysics Center.

Jaco de Swart is a Marie Curie Postdoctoral Fellow at the University of Cambridge's Department of History and Philosophy of Science and Institute of Astronomy. He trained in physics and philosophy, obtained his PhD from the University of Amsterdam, and was previously an American Institute of Physics Helleman Postdoctoral Fellow at MIT.

De Swart uses historical and philosophical methods to engage with open problems in physics and cosmology. His work focuses on the history of dark matter, tracing the conditions under which the issue struck root between the 1960s and 1980s and how it the reshaped the science of cosmology. He is currently completing his book manuscript on the topic with MIT Press.

De Swart's work has appeared in Nature Astronomy, Nature Review Physics, and Social Studies of Science, and he has been often featured in popular media, including a recent PBS NOVA documentary. He has a passion for social and environmental justice, and was recently co-awarded a Temple Foundation Grant to lead the responsible siting team of the TAMBO neutrino observatory.

Alexei Smirnov was born in Moscow, USSR in 1951. He graduated from Moscow State University (MSU) in 1974 and received his PhD in theoretical physics in 1979 under G. Zatsepin and V. Berezinsky. In 1989 he got a degree of Doctor of Mathematical and Physical sciences. From 1977 to 1992 he worked in the Institute for Nuclear Research of the Russian Academy of Sciences and taught at MSU. From 1992 Dr. Smirnov worked at the International Centre for Theoretical Physics (ICTP), Trieste. In 2014, Smirnov moved to Heidelberg, Germany to joint Max-Planck-Institute for Nuclear Physics (MPIK), as a Max-Planck fellow while continuing to teach at ICTP. After retirement in 2025 he returned to ICTP as an emeritus scientist.

In 1973 - 1975 under supervision of V. Berezinsky, Smirnov computed the Galacticand extragalactic fluxes of high energy neutrinos and related cascade fluxes of gamma rays. In 1984 - 1985 following

Wolfenstein's work Smirnov together with S. Mikheyev uncovered effects of the resonance enhancement of neutrino oscillations in matter and adiabatic conversion in matter with varying density (MSW effect). The latter was proposed as a solution of the solar neutrino problem and experimentally confirmed in 2000ies. From the 1990s Smirnov elaborated various aspects of theory and phenomenology of neutrino propagation in different media. Among various awards and prizes Smirnov has received are Bruno Pontecorvo prize (2006), Sakurai prize (2008), Albert Einstein medal (2016).

Alan Watson After completing his PhD at the University of Edinburgh in 1964, on the condensation of water vapour, Alan Watson moved to Leeds University where he played a major role in the construction of the British National Air Shower project at Haverah Park. In 1987 his group, in collaboration with a team from the University of Delaware, constructed a shower array at the South Pole to search for 100 TeV photons from SN1987A. Additionally, with AMANDA Collaboration they made a measurement of the mass of cosmic rays in the range 500 to 5000 TeV.

In 1991 he and Jim Cronin began the creation of what became the Pierre Auger Collaboration, a grouping of ~400 scientists from 18 countries. This led to the construction in Argentina of a shower detector having 1600 water-Cherenkov detectors laid out over 3000 km^2, overlooked by four telescopes used to detect the fluorescence radiation produced by air showers created by cosmic rays of energy above 1 EeV. Data from the Auger Observatory have transformed knowledge of the energy spectrum, the arrival direction distribution and the mass composition of cosmic rays to beyond 100 EeV.

Takaaki Kajita is a Distinguished University Professor and a Special University Professor of The University of Tokyo. He is affiliated with the Institute for Cosmic Ray Research (ICRR) of the University of Tokyo.

Kajita received his Ph.D. from the University of Tokyo School of Science in 1986, and has been researching with Kamiokande and Super-Kamiokande neutrino detectors at the Kamioka Observatory of ICRR in central Japan. In 1998, at the Neutrino International Conference held in Takayama, Japan, he showed the analysis results which provided strong evidence for atmospheric neutrino oscillations. In 2015 he shared the Nobel Prize in Physics for his role in discovering atmospheric neutrino oscillations. He is the project leader of KAGRA aiming to explore the gravitational wave astronomy.

Kajita was the director of the Institute for Cosmic Ray Research between 2008 and 2022. He was the President of the Science Council of Japan between 2020 and 2023. He has been a member of the Japan Academy since 2019.

Lawrence Sulak received his PhD from Princeton in 1970 for measuring CP violation parameters to 0.5% with Val Fitch, before continuing this work with R. Turlay at Saclay, CERN, and the University of Geneva. Moving to Harvard in 1971, he was captivated by the two neutrino mystery, leading him to invent massive total absorption calorimeters with Carlo Rubbia for the Fermi and Brookhaven National Laboratories. This led to the discovery of weak neutral currents. In 1978, his team prototyped a 10,000 ton water Cherenkov ring-imaging detector, which they realized as the IMB detector in a mine under Lake Erie, demonstrating that the proton lifetime is $>10^{32}$ years in 1983. In 1987, IMB was one of the detectors to detect neutrinos from SN1987A. Sulak brought his detector expertise to projects as diverse as the CMS quartz fibre Cherenkov forward calorimeter and the Antares Observatory 2.4 km deep in the Mediterranean off the coast of France.

Sulak was awarded the APS Instrumentation and the APS Panofsky Prizes for "for novel contributions to particle detection, including pioneering developments for massive water Cherenkov detectors that led to major advances in nucleon decay and neutrino oscillation physics". He is currently David M. Meyers Distinguished Professor at Boston University.

Alessandro Bettini, Emeritus Professor at the Padua University, performed and led experiments at CERN and LNGS. He gave contributions to hadron spectroscopy (discover of the first scalar resonance), to the study of the annihilation of antiprotons, of charm, of the vector bosons and of neutrinos. He is the author of more than 200 scientific articles and of eight textbooks, on general physics and particle physics, and three for the general public. He has been vice-president of the INFN and Director of the Gran Sasso (Italy) and Canfranc (Spain) Underground Laboratories.

Frank Avignone is Carolina Endowed Professor of Physics and Astronomy at the University of South Carolina, in Columbia, South Carolina, USA. He is mainly known for his early work in the development of neutrino-less double-beta decay experiments starting in 1979. He was international spokesman of the IGEX ^{76}Ge double-beta decay experiment and a 2nd level manager in both the MAJORANA and CUORE projects; he is active in the LEGEND ^{76}Ge neutrino-less double-beta decay experiment, and is involved in R&D to support LEGEND-1000, a one-ton extension of LEGEND-200.

Luisa Bonolis received a Master's degree in Physics from Sapienza University in Rome and a PhD in the History of Science from the University of Bari. Her work is focused on the development of the physical and astrophysical sciences in the 20th and 21st centuries. She has conducted numerous oral history projects and written on topics ranging from the evolution of cosmic ray studies and nuclear and elementary particle physics to the rise of matter–antimatter colliders in Europe. More recently, her research interests have included the emergence of relativistic astrophysics, astro-particle physics and multi-messenger astronomy. She has been a researcher at the Max Planck Institute for the History of Science in Berlin since 2013.

Albrecht Wagner is an experimental particle physicist, with emphasis on the study of elementary particles, in particular their properties in high-energy electron-positron collisions, and the design and development of particle detectors.

From 1984 to 1991, he was Professor of Physics at the University of Heidelberg, moving to a Professorship at the University of Hamburg from 1991 to 2006. From 1991 to 1999, he was Director of Research at DESY, becoming Chairman of the Board of Directors at DESY from 1999 to 2009. He was Vice-President of the Helmholtz Association from 2001 to 2008, Chair of the International Committee for Future Accelerators (ICFA) from 2006 to 2008, Chair of the Supervisory Board of the University of Hamburg from 2008 to 2020 and a member of the Board of Curators of the Joachim Herz Foundation from 2010-2021. He has served two terms as Acting President of the Okinawa Institute of Science and Technology (OIST), from October 2015 to January 2016, and from January 2023 to June 2023.

Enzo Iarocci is an experimental physicist whose work has spanned particle detectors, particle astrophysics, and electron-positron interactions. In the late 1970s he developed the innovative streamer tube detector, widely adopted in major particle physics and astrophysics experiments worldwide. In the 1980s, he led the Frascati group in NUSEX, the Nucleon Stability Experiment in the Mont Blanc tunnel and later co-led the US-Italy MACRO experiment (Monopole Astrophysics and Cosmic Ray Observatory) at the Gran Sasso underground laboratory, which contributed significantly to various studies of the penetrating cosmic radiation.

As Director of the Frascati National Laboratories, he promoted and organized the construction of the DAPHNE ϕ-Factory, a high-luminosity electron-positron collider (1990–96). He served as President of INFN (1998–2004) and President of the CERN Council (2004–06), having previously chaired the Detector R&D Committee and the LHC Committee during key phases of the LHC's experiments conception and approval (1990–93 and 1996–98). He later chaired the Steering Committee for the International Linear Collider (2007–09). He was awarded the Italian Republic's Gold Medal for Science and Culture (2000). Former Professor of Physics at La Sapienza in Rome, now Emeritus at INFN.

Walter Hoogland After receiving a doctorate in experimental particle physics in 1968, Walter Hoogland began his research career at the foundation for Fundamental Research on Matter (FOM) in the Netherlands, before going on to hold positions at UCLA, NIKHEF, KEK and the University of Amsterdam. From 1989 to 1994, he was Director of Research at CERN, signing the document that made the World Wide Web available to the world royalty-free. Returning to Amsterdam, he took up a position as Chair of the Board of Deans of the science faculties, and served as Dean of Science from 2000 to 2005. He has served on numerous international committees, and chaired the World Year of Physics in 2005.

Bebo White is retired from the SLAC National Accelerator Laboratory (SLAC). He is known for his early work on WWW technology beginning while on sabbatical at CERN in 1989. This work led to his active involvement in the establishment of the website at SLAC, which was the fifth such in the world and the first outside of Europe. At present, he is a faculty member at The University of San Francisco, San Francisco State University, Santa Clara University and The University of California, Berkeley. His research and teaching focuses on Web/Internet Technologies, History of Science, Artificial Intelligence (AI) and Cryptocurrency.

Emmanuel Tsesmelis is an experimental particle physicist with a career spanning scientific research, teaching, public engagement, international relations and management at CERN and at several universities.

He is a Principal Physicist at CERN and a Visiting Professor in Physics at the University of Oxford. He is a Fellow of the Australian Institute of Physics (FAIP), an Honorary Member of the Hellenic Physical Society and a Supernumerary Member of Jesus College, Oxford. He has also served as member of the National Council for Research and Innovation of Greece.

Starting in 1989, his scientific research includes the search for the charged Higgs boson at the UA2 experiment at CERN and the study of neutrino properties at CERN's neutrino facilities. In 1998 he joined the CMS Collaboration at CERN's Large Hadron Collider (LHC), one of the two experiments that discovered the Higgs boson in 2012, and for the period 2005-2008 he was Head of the LHC Experimental Areas. He has served over many years on CERN scientific committees and was a member of the CERN Directorate Office from 2009-2015. Since 2004 he has been providing strategic advice to CERN Directors-General on international relations and for the period 2013-2015 he was Deputy Head of International Relations. Today, he is Head of Associate Member and Non-member State Relations at CERN and leads the group mandated to establish the global collaboration for CERN's candidate next high-energy collider – the Future Circular Collider (FCC).

Agnieszka Zalewska is a Polish physicist, specializing in experimental particle physics. She received her PhD from the Jagiellonian University in Cracow, Poland in 1975 for work on multiparticle production studies in K^+p interactions. Her research activities at the Henryk Niewodniczanski Institute of Nuclear Physics in Cracow, CERN and other particle physics laboratories in Europe, USA and Japan included hadron physics, e+e- interactions and neutrino physics as well as pioneering work on silicon vertex and tracking detectors with VLSI electronics. She is a member of the Polish Academy of Arts and Sciences.

She served on various advisory or review boards and scientific committees in Poland and abroad. In particular, she chaired the ministerial Interdisciplinary Advisory Committee on Polish participation in international research projects and strategic research infrastructures localised abroad from 2016-2025 and was a member of the Scientific Policy Committee at CERN from 2004-2009, the CERN Council from 2010-2012, the Identification Committee for the European Research Council from 2014-2019 and the ESFRI Executive Board from 2016-2021. In the years 2013-2015 she was President of the CERN Council.

Professor **Vladimir Shiltsev** of Northern Illinois University is a Russian-American accelerator scientist; he got his PhD from the Budker Institute of Nuclear Physics (Novosibirsk, Russia) in 1994, and worked in leading accelerator laboratories in Novosibirsk and Protvino in Russia, the SSC Lab (USA) and DESY before joining Fermilab in 1996. Retired from FNAL as a Distinguished Scientist in 2024, his career comprised being the Head of the Tevatron Department, the inaugural Director of the Fermilab Accelerator Physics Center, the Accelerator Research Division Director. A world-leading expert in particle colliders and related accelerator technologies, he built 4 accelerators, and authored five books and more than 450 publications.

Shiltsev is a Member of the Academia Europaea, and of the Bologna Academy, Fellow of the IEEE, AAAS, APS, and of the Russian-American Scientist Association (RASA), recipient of many US and International Prizes and awards, served as the Chair of the APS Division of Physics of Beams (2018). He actively contributes to the history of physics and scientific outreach with numerous lectures and seminars in the US and worldwide, and dozens of publications in Physics Today, Physics World, Physics in Perspective, Physics Uspekhi, Il Nuovo Saggiatore, etc.

Hirotaka Sugawara received his PhD in 1966 from the University of Tokyo, where he derived a relation for non-leptonic hyperon decay amplitudes known as the Lee-Sugawara relation. His best-known work is his 1968 paper describing what is now known as the Sugawara construction.

Sugawara held postdoctoral research positions at Cornell, UC Berkeley and the University of Chicago. Upon return to Japan in 1968, he joined the Tokyo University of Education, moving to the University of Tokyo in 1971. In 1975, he became full professor at the National Laboratory for High Energy Physics, today known as KEK, where he served as Director General from 1989 to 2003. While at KEK, he concurrently held positions at various national organizations in Japan. He served as a Chair of ICFA from 1999 to 2002.

As well as playing a significant role in the KEK B factory, he provided strong leadership in setting up the long-baseline neutrino oscillation experiment connecting the proton synchrotron at KEK and Super-Kamiokande, and led the launch of J-PARC (Japan Proton Accelerator Research Complex).

After 14 years as Director General of KEK, he became a Professor Emeritus at KEK and a professor at University of Hawaii, Manoa, in 2003. Since 2012, he has been Distinguished Professor and Special Advisor to the President of the Okinawa Institute of Science and Technology (OIST), where he established an Advanced Medical Instrumentation Unit.

Jinyan Liu is a Professor of Modern Physics History at the Institute for the History of Natural Sciences, Chinese Academy of Sciences. She earned her PhD in Theoretical Physics from the Chinese Academy of Sciences' Institute of Theoretical Physics in 2013. Her research focuses on the history of particle physics, with particular emphasis on high-energy physics development in China. Her publications include a Chinese language monograph on Chinese physicists' development of the Straton model (1965 - 1966), alongside papers on Sino-Soviet physics collaboration during the 1950s-1960s and the role of prominent Chinese-American physicists – including C. N. Yang and T. D. Lee – in promoting China's international science and technology exchange since the 1970s.

She has served on the Executive Committee of the Forum on the History and Philosophy of Physics of the American Physical Society (APS) (2020-2023) and as Secretary of the Inter-Union Commission for the History and Philosophy of Physics (IUPAP/DHST) (2024-2026).