Professor Andrea Ferrari

SIT Title: *Member of SIT Strategic Advisory Board.*
Professor of Nanotechnology at the University of Cambridge and Director of Cambridge Graphene Centre

Andrea C. Ferrari earned a PhD in Electrical Engineering from Cambridge University, after a Laurea in Nuclear Engineering from Politecnico di Milano, Italy.
He has a Cambridge ScD. He is Professor of nanotechnology and Fellow of Pembroke College. He is Director of the Cambridge Graphene Centre and the EPSRC Centre for Doctoral Training in Graphene Technology. He chairs the Management Panel and is the Science and Technology Officer of the European Graphene Flagship. He is Fellow of the American Physical Society, Fellow of the Materials Research Society, Fellow of the Institute of Physics, Fellow of the Optical Society, Fellow of the European Academy of Sciences, Member of the Academia Europaea, Fellow of the Royal Society of Chemistry, Fellow of the Royal Academy of Engineering.
His work sits at the frontier between physics, engineering, nanotechnology and materials science. He is a world authority on characterisation of carbon materials, including diamond-like carbon, nanotubes and graphene. His work underpins the interpretation of Raman scattering in carbon-materials and is a worldwide standard in industry. Collaborations with industry have enabled the pull-through of sciences to technologies in several areas.
He is a global leader in graphene and related materials engineering, having pioneered many areas, from mass scale identification by spectroscopic means, to their implementation in printed and flexible electronics, photodetectors, modulators, lasers, and plasmonic structures.

Major Awards

- The Royal Society Brian Mercer Award for Innovation
- The Royal Society Wolfson Research Merit Award
- The Marie Curie Excellence Award
- The Philip Leverhulme Prize
- The EU-40 Materials Prize
- The Blaise Pascal Medal of the European Academy of Science in Materials Science
- He also received 4 European Research Council Grants.
- ICSE Most Influential Paper Award (2002)

Professor Fabio Pammolli

SIT Title: *Member of SIT Strategic Advisory Board.*
Professor of Economics and Management at Politecnico di Milano

Fabio Pammolli is professor of Economics, Finance and Data Science at Politecnico di Milano. Since July 2021 he's one of the 4 permanent members of the Investment Committee of InvestEU, at the European Commission. From 2015 to 2020 he served as a member of the Investment Committee of the European Fund for Strategic Investments at the European Investment Bank. Over the years he has served as a policy expert at the international and national levels. He's the Founding Rector of the IMT School for Advanced Studies, in Italy. He has served within the Scientific Team which has designed The Human Technopole project in Milan. In addition to top journals in economics, management and finance, he has published in leading multidisciplinary journals such as, among the others, Science, The Proceedings of the National Academy of Sciences, Nature Communications, Nature Physics. He was a visiting scholar at Harvard University, MIT, Stanford University, Boston University, Northeastern University, the London School of Economics, SciencesPo.

In his research, Pammolli focuses on a variety of topics in the analysis of growth, diversification, and instability of industrial and financial systems. Together with H.E. Stanley, S. Buldyrev, and M. Riccaboni, professor Pammolli has co authored several seminal papers and a pioneering book at the intersection between economics and physics, with theoretical and empirical results in the analysis of instability and growth in economic and financial systems ('The Rise and Fall of Business Firms', Cambridge University Press, 2020). Professor Pammolli serves as a member of Boards of Directors of for profit and nonprofit entities, including, ENAV, ArExpo and the Galleria dell'Accademia Museum in Florence, Italy.

Professor David S. Rosenblum

SIT Title: *Member of SIT Strategic Advisory Board.*
Chair of the Department of Computer Science at George Mason University

Professor Rosenblum received his PhD in 1988 from Stanford University. From 1988 to 1996 he was a Member of the Technical Staff at AT&T Bell Laboratories (now AT&T Labs Research) in Murray Hill, New Jersey, and from 1996 to 2001 he was on the Faculty of the Department (now School) of Information and Computer Science at the University of California, Irvine. From 2001 to 2003 he was Chief Technology Officer and Principal Architect of PreCache, a startup company developing technologies in the area of publish/subscribe networking. From 2004 to 2011 he was Professor of Software Systems in the Department of Computer Science at University College London. From 2011 to 2020 he was a Professor of Computer Science at the National University of Singapore, where he served as Dean of the NUS School of Computing from 2013 to 2016 and Director of the NUS-Singtel Cyber Security Research and Development Laboratory from 2016 to 2020.

David S. Rosenblum is Planning Research Corporation Professor and Chair of the Department of Computer Science at George Mason University.

Professor Rosenblum's research has addressed a wide range of problems spanning the breadth of the software development life cycle, including software specification, architecture, design, verification, testing, analysis and maintenance. His current research focuses on the use of machine learning in the design and testing of mobile, context-aware adaptive systems for ubiquitous computing and the Internet of Things.

Major Awards

- ACM SIGSOFT Distinguished Service Award (2018)
- Inaugural ACM SIGSOFT Impact Paper Award (2008)

Professor Nicolas Gisin

SIT Title: *Member of SIT Strategic Advisory Board.*
Professor of Quantum information and communication at the University of Geneva

Nicolas Gisin is a Swiss physicist and professor at the University of Geneva working on quantum information and communication, as well as on the foundations of quantum mechanics. His work includes both experimental and theoretical physics. His work contributed significantly to the fields of experimental quantum cryptography and long-distance quantum communication in standard telecom optical fibers.

He co-founded ID Quantique, a spin-off company which is one of the world's leaders in the field of quantum information and communication technologies.
The era of long-distance quantum communication was effectively started in 1995 by Nicolas Gisin's experiment, in which a quantum cryptographic signal was transmitted at a distance of 23 km over a commercial optical fibre under Lake Geneva.

Before becoming a quantum engineer, Nicolas Gisin worked as a classical telecommunication engineer, first in industry, next at the University. He invented a technique to measure Polarization Mode Dispersion (PDM) in optical fibers.

Major Awards

- Swiss Science Prize 2014 awarded by the foundation Marcel Benoist. This is the highest Swiss prize for all sciences, awarded once per year to a single person (2014)
- Quantum Communication, Measurement and Computing award, QCMC'14 (2014)
- Volta Medal from the University of Pavia, Italy (2015)
- ERC Advanced Grant on "Quantum Correlations" (2008)
- John Stewart Bell Prize for Research on Fundamental Issues in Quantum Mechanics and their Applications (2009)

Professor Scott Aaronson

SIT Title: *Member of SIT Strategic Advisory Board*
Professor of Computer Science at University of Texas at Austin

Scott Joel Aaronson (born May 21, 1981) is an American theoretical computer scientist and David J. Bruton Jr. Centennial Professor of Computer Science at the University of Texas at Austin.

After postdoctorates at the Institute for Advanced Study and the University of Waterloo, he took a faculty position at MIT in 2007. His primary area of research is quantum computing and computational complexity theory more generally.

In the summer of 2016 he moved from MIT to the University of Texas at Austin as David J. Bruton Jr. Centennial Professor of Computer Science and as the founding director of UT Austin's new Quantum Information Center.

Major Awards

- Aaronson is one of two winners of the 2012 Alan T. Waterman Award.
- Best Student Paper Awards at the Computational Complexity Conference for the papers "Limitations of Quantum Advice and One-Way Communication" (2004) and "Quantum Certificate Complexity" (2003).
- 2017 Simons Investigator
- He was awarded the 2020 ACM Prize in Computing "for groundbreaking contributions to quantum computing"

Professor Mikhail Lukin

SIT Title: *Member of SIT Strategic Advisory Board.*
Professor of Physics, Harvard University, Co-Director, Harvard Quantum Optics Center, Co-Director, Harvard-MIT Center for Ultracold Atoms

Mikhail Lukin's research is in the areas of quantum optics and atomic physics. The emphasis is on studies of quantum systems consisting of interacting photons, atoms, molecules and electrons coupled to realistic environments. Lukin's group is developing new techniques for controlling the quantum dynamics of such systems, and studying fundamental physical phenomena associated with them.

These techniques are used to explore new physics, as well as to facilitate implementation of potential applications in emerging areas such as quantum information science and in more traditional fields such as non-linear optics. In the course of this work he is also exploring the emerging interfaces between quantum optics and atomic physics on one hand, and condensed matter and mesoscopic physics on the other.

Major Awards

- James O. Gordon Memorial Speaker, Optical Society of America (2018)
- National Academy of Sciences Member (2018)
- George Gamow Award (2020)
- Charles Hard Townes Award of the Optical Society of America (2021)
- Julius Springer Prize for Applied Physics (2015)

Professor Artur Ekert

SIT Title: *Member of SIT Strategic Advisory Board.*
Director of the Center for Quantum Technologies, Oxford University, Fellow of Merton College, University of Oxford, Lee Kong Chian Centennial Professor, National University of Singapore

Artur Konrad Ekert is A Professor of quantum physics, quantum computation and cryptography. His research extends over most aspects of information processing in quantum-mechanical systems. It is a cross-disciplinary field bringing together theoretical and experimental quantum physics, computer science and information theory. Its scope ranges from deep fundamental issues in physics to prospective commercial exploitation by the computing and communications industries.

He has worked with and advised several companies and government agencies. He has served on several professional advisory boards and is one of the trustees of The Croucher Foundation.

His research interests extend over most aspects of information processing in quantum-mechanical systems, with a focus on quantum communication and quantum computation. He is best known as one of the pioneers of quantum cryptography.

Major Awards

- Maxwell Medal and Prize by the Institute of Physics, 1995
- Hughes Medal by the Royal Society, 2007
- European Union Descartes Prize 2004
- Fellow of the Royal Society 2016
- Singapore Public Administration Medal (Silver) Pingat Pentadbiran Awam 2017
- Micius Quantum Prize, 2019

Professor Wolfgang Wahlster

SIT Title: *Member of SIT Strategic Advisory Board.*
Professor of Computer Science, CEA of the German Research Center for Artificial Intelligence (DFKI)

Wolfgang Wahlster is a Professor of Artificial Intelligence (AI) and a pioneer of AI in Germany and Europe. His research areas are artificial intelligence, computational linguistics, and intelligent user interfaces. He works on the basics of Human-technology interactions and develops personalized dialogue systems.

Wahlster is Co-initiator of numerous research projects such as "Industry 4.0", which is about collaboration of robots and humans. Professor Wahlster is a founding director and Chief Executive Advisor of the German Research Center for Artificial Intelligence (DFKI). He is an elected Fellow of AAAI, EurAI, and GI.

His current research areas are multimodal dialog systems for human-centered AI and cyber-physical production systems for the fourth industrial revolution (Industrie 4.0), a concept that he coined in 2010. He is on the Executive Board of the International Computer Science Institute (ICSI) at UC Berkeley and a member of the steering board of Germany's platform for AI.

Wahlster is a member of the Nobel Prize Academy in Stockholm, the German National Academy Leopoldina and three other prestigious academies.

Major Awards

- German Future Prize
- First Class Cross of Merit
- Grand Cross of Merit by the Federal President of Germany
- IJCAI Donald E. Walker Award in 2013
- ICMI Sustained Accomplishment Award of the ACM in 2016

Professor Serguei Netessine

SIT Title: *Member of SIT Strategic Advisory Board*
Dhirubhai Ambani Professor of Innovation and Entrepreneurship, Professor of Operations, Information and Decisions, Senior Vice Dean for Innovation and Global Initiatives at Wharton School, University of Pennsylvania.

Professor Netessine received BS/MS degrees in Computer Science and Electrical Engineering from Moscow Institute of Electronic Technology and, after working for Motorola and Lucent Technologies, he also received MS/Ph.D. degrees in Operations Management from the University of Rochester. His current research focuses on business model innovation and operational excellence and he worked on these topics with numerous government and Fortune-500 organizations including Federal Aviation Administration (USA), Government of Singapore, Lockheed Martin, Procter & Gamble, McDonald's, Rolls Royce, Comcast, Expedia, ABB and US Air Force. He serves on advisory boards of multiple startup companies and he is an active angel investor. Prof. Netessine also regularly participates in industry and government-organized forums on Innovation and Entrepreneurship, including World Economic Forum in Davos and World Knowledge Forum in Seoul. He was a member of the "Future of the Economy" committee for Singapore Government.

Major Awards

- Distinguished Fellow of MSOM Society of INFORMS, 2018
- Finalist, 2015 MSOM Service Management SIG Prize for the best paper on service management published in the past three years., 2017
- Distinguished Service Award from M&SOM Society of INFORMS, 2016

Dr Rino Rappuoli

SIT Title: *Member of SIT Strategic Advisory Board*
Chief Scientist & Head of External Research and Development at GlaxoSmithKline Vaccines

Rappuoli earned his doctoral and bachelor's degrees in biological sciences at the University of Siena.

Rino Rappuoli is Head of Vaccine research and development (R&D) at GlaxoSmithKline (GSK) Vaccines. Previously, he has served as visiting scientist at Rockefeller University and Harvard Medical School and held roles at Sclavo, Vaccine Research and CSO, Chiron Corporation, and Novartis Vaccines.

He is known globally for his work in vaccines and immunology. He co-founded the field of cellular microbiology, a discipline combining cell biology and microbiology, and pioneered the genomic approach to vaccine development known as reverse vaccinology.

Rappuoli led Chiron Corporation's development of adjuvanted influenza vaccines, MENJUGATE(R) conjugate vaccine against meningococcal-C disease and the first recombinant bacterial vaccine against pertussis. Currently, Rappuoli is actively involved in the research and development of further vaccines against meningococcal disease and avian and pandemic influenza.

Major achievements include development of CRM197used in Haemophilus influenzae, Neisseria meningitidis, and pneumococcus vaccines; an acellular pertussis vaccine containing a genetically detoxified pertussis toxin; the first conjugate vaccines against meningococcus; MF59 adjuvant for influenza; the meningococcus B genome-derived vaccine.

During his career, he has introduced several novel scientific concepts: genetic detoxification in 1987; cellular microbiology in 1996; reverse vaccinology in 2000; pan-genome in 2005.

Major Awards

- Paul Ehrlich and Ludwig Darmstaedter Prize in 1991
- Italian President Gold Medal in 2005
- the Albert Sabin Gold Medal in 2009
- In 2013 he was nominated third most influential person worldwide in the field of vaccines by Terrapin
- Fellowship of Imperial College London Faculty of Medicine and the Maurice Hilleman Award, 2015
- European Inventor Award 2017 in the category of "Lifetime achievement" by the European Patent Office
- Foreign Member of the Royal Society 2016
- Robert Koch Prize, 2019

Professor Mark Kamlet

SIT Title: *Member of SIT Strategic Advisory Board.*
Professor of Economics and Public Policy and Provost Emeritus at Carnegie Mellon

Mark S. Kamlet is a Professor of Economics and Public Policy and Provost Emeritus at Carnegie Mellon, with joint appointments in the Department of Social and Decision Sciences in the Dietrich College of Humanities and Social Sciences, and the Heinz College of Information Systems and Public Policy.
Mark Kamlet joined Carnegie Mellon as a faculty member in 1976. From 1990 to 1993 he served as department head of Social and Decision Sciences. From 1993 to 2000 he served as dean of the Heinz College (School of Information Systems; School of Public Policy and Management).

From 2000 to 2014, Kamlet served as provost (chief academic officer) and executive vice president. In this role, he oversaw the research and educational activities of campus, as well as space, facilities, and computing infrastructures. He was especially engaged in the university's technology commercialization activities, the growing internationalization of the university's footprint, and the role of technology in education.

He serves on the boards of various for-profit and not-for-profit organizations and has served on the board of five start-ups in the technology-enhanced learning space. Kamlet has served on study panels of the National Academy of Science, the National Institutes for Health, and the National Academy of Medicine. He is an elected fellow of the American Association for the Advancement of Science.

Kamlet earned his Bachelor's degree in mathematics from Stanford. He has a Master's in mathematical statistics, a Master's in economics, and PhD in economics from the University of California at Berkeley.

Dr Guenther Dobrauz

SIT Title: *Member of SIT Strategic Advisory Board.*
Partner and Leader PwC Legal Services, Global LegalTech Leader, PwC Switzerland

Guenther is a Partner at PwC Zurich and Leader of PwC Legal Switzerland where he and his team are building the law firm of the future. Every day.

He also is one of seven members of PwC's Global Legal Leadership Team and PwC Legal's Global LegalTech Leader. Prior to this he was a successful Venture Capitalist, served as in-house counsel at an international hedge fund and practised in court and with a leading business law firm.

Guenther holds a PhD in law from Johannes Kepler University (Austria), an MBA from the University of Strathclyde (Scotland) and has completed Executive Education programs at Harvard Business School and Harvard Law School. He is the author of 10 books mostly on investment law and regulation but also of "Making Money out of Technology" (2003), "Uptake Revisited: How Innovative Products succeed in International Markets" (2007) and "New Suits. Appetite for Disruption in the Legal World" (2019).

He is actively involved in numerous ventures and lectures at various universities. Guenther is also the host of the educational video series "Appetite for Disruption "(www.appetitefordisruption.tv), the founder of global technology enthusiasts' movement Disruption Disciples, Co-Host of Legal Hackers Zurich, and a permanent member of expert groups at economiesuisse, the Swiss Fund and Asset Management Association and the Swiss Fintech Innovation Association.