INTEGRATIVE ECONOMICS

Speaker Biographies

5-6 March 2020
OECD Conference Centre, Paris, CC2

Further information: William Hynes – william.hynes@oecd.org
Shardul Agrawala, Head of the Environment and Economy Integration Division at the OECD Environment Directorate. In this capacity, Dr. Agrawala leads the Directorate’s work on economic-environmental modelling, empirical analysis of environmental policies, trade and environment, and on resource productivity and waste.

At the OECD since 2002, Dr. Agrawala has previously served as Senior Advisor to the OECD Secretary General, Co-ordinator of the OECD-wide initiative on New Approaches to Economic Challenges, Acting Head of the Climate Change Biodiversity and Development Division, and Senior Economist Climate Change. He has published extensively, primarily on climate change, and led teams of international experts for chapters of the Fourth and Fifth Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC). Dr Agrawala received his PhD from Princeton University and has previously held research positions at Princeton University, Harvard University, Columbia University and at the International Institute of Applied Systems Analysis (IIASA).
Angus Armstrong is the Director of the Rebuilding Macroeconomics Network. In addition, Angus also assumes the role of Chief Economic Adviser to Lloyds Banking Group.

Previously, Angus Armstrong was the Director of Macroeconomics at the National Institute of Economic and Social Research (NIECR). In addition, he was Head of Macroeconomic Analysis at Her Majesty’s Treasury from mid-2004, where he was closely involved in the UK’s response to the financial crisis, including representation at G20 Officials Meetings. Prior to joining the Treasury, Armstrong was Chief Economist Asia and a Managing Director at Deutsche Bank. He is an Adjunct Professor at Imperial College Business School. His research interests are the application of finance to family decision making and comparative macro-financial systems.

Angus has a PhD in economics and is an Honorary Professor Stirling University. Fields of expertise include macroeconomics, financial systems, international monetary system and constitutional economics (Scotland and Brexit).
Michael Benzaquen

CNRS Research Scientist, Chair of Econophysics & Complex Systems, LadHyX & Department of Economics, Ecole Polytechnique

CNRS Research Scientist and accredited research director (HDR) based at Ecole polytechnique. Benzaquen's research focuses on both the statistical physics of complex systems and hydrodynamics at interfaces. He is particularly interested in quantitative finance, economics and social sciences from a physical perspective. Benzaquen founded and currently holds the Chair of Econophysics & Complex Systems at Ecole polytechnique, see www.econophysix.com.

Recent Publications

Richard Bookstaber

Author

Rick Bookstaber is Chief Scientist and Co-founder of Talagent. He is also the Chief Risk Officer in the Office of the CIO for the Regents of the University of California, with oversight across its $110 billion of assets. He is a noted expert in financial risk management. His career has spanned chief risk officer roles on both the buy-side at Moore Capital and Bridgewater, and on the sell-side at Morgan Stanley and Salomon. From 2009 to 2015, Bookstaber served in the public sector at the SEC and the U.S. Treasury, with drafting of the Volcker Rule, building out the risk management structure for the Financial Stability Oversight Council, and developing an agent-based model to assess financial vulnerabilities.

He received a Ph.D. from the Massachusetts Institute of Technology.

Key Publications

- The End of Theory (Princeton, 2017)
- A Demon of Our Own Design (Wiley, 2007)
Jean-Philippe Bouchaud

Chairman, Capital Fund Management (CFM) and Rebuilding Macroeconomics

Jean-Philippe Bouchaud is Chairman and Chief Scientist. He supervises the research and maintains strong links between the research team and the academic world. He is also a professor at Ecole Polytechnique where he teaches Statistical Mechanics and a course on 'Complex Systems'. He joined CFM in 1994.
Michele Cecchini

Principal Administrator, Public Health Division, Employment, Labour and Social Affairs Directorate, OECD

Senior health economist and policy analyst in the OECD Health Division. Michele Cecchini is responsible for the OECD programme of work on Public Health which includes three main areas of work: i) preventing unhealthy lifestyles and major risk factors; ii) tackling emerging communicable diseases with a focus on antimicrobial resistance; iii) assessing and providing advice on reforms to improve public health systems.

His research interests include priority setting and programme evaluation of policies influencing population health, in particular with regards to the health and economic assessment of public health policies across different sectors. Michele holds a position of adjunct professor in applied health economics at the School of Public Health of the University of Siena and held a visiting position at the Health Services & Systems Research Centre of the Duke-NUS Graduate Medical School in Singapore.

He has also served as a temporary advisor to a number of government and international agencies, including WHO, IARC, EC and the World Bank on a range of public health issues. After obtaining a degree in Medicine and Surgery from the University of Genoa, Michele completed his specialist training in Public Health at the University of Siena. He also obtained a master’s degree in Health Policy, Planning and Financing from the London School of Economics and the London School of Hygiene and Tropical Medicine.
Mame Fatou Diagne

Head of Country Studies Division, Economics Department, OECD

Mame Fatou Diagne is Head of Division in the Economics Department of the OECD. She leads macroeconomic and structural country analyses for the Czech Republic, Germany, Hungary, Israel, Latvia, Slovenia, Slovakia, South Africa and Switzerland. Prior to joining the OECD, she worked for the World Bank, where she managed loan programs and led analytical work on public finance, inequality and poverty. She has also worked as a sovereign ratings analyst at Standard & Poor’s and as an economist at Société Générale. She holds a Ph.D. in Economics from the University of California, Berkeley.
NEW APPROACHES TO ECONOMIC CHALLENGES (NAEC)

Joshua M. Epstein

Professor of Epidemiology, New York University College of Global Public Health

Dr. Joshua M. Epstein’s research focuses on modeling complex social, economic, and biological systems using agent-based computational models and nonlinear dynamic systems.

Dr. Epstein has extensive experience in mathematical and computational modeling of biomedical and social dynamics at all scales - from local to national to planetary. He pioneered the technique of agent-based computational modeling and has applied it to problems in social, behavioral, and biomedical science by modeling patterns of infectious diseases (e.g., Ebola, 2009 Swine Flu pandemic, smallpox, HIV), vector-borne diseases (e.g., Zika), urban disaster preparedness, contagious violence, the evolution of norms, economic dynamics, computational reconstruction of the ancient civilization of the Anasazi, and the emergence of social classes, among many other topics. To design evacuation and longer-term adaptation to climate change, he combined computational fluid dynamics (i.e. toxic plume dispersion) with human behavior to create a stunning 3D artificial Los Angeles. In response to Zika and in collaboration with colleagues and the New York Department of Health and Mental Hygiene, Dr. Epstein has developed an artificial New York City to be applied to urban health policy challenges. His work has had a profound influence on emerging infectious diseases, bioterrorism, and the nascent field of disaster health, which is being developed under Presidential Directive (I-ISPD-21).

Dr. Epstein is the Director of the Agent-Based Modeling Lab, which works with large-scale epidemic models and cognitively plausible agents in order to produce a transformative synthesis for global public health modeling through the generative social science approach. For this transformative innovation, he was awarded the NIH Director’s Pioneer Award in 2008, an Honorary Doctorate of Science from Amherst College in 2010, and was elected to the Society of Sigma XI in 2018.

He holds multiple appointments within NYU, including affiliated faculty positions at the Courant Institute of Mathematical Sciences and the College of Arts and Science. In addition, he is an External Professor at the Santa Fe Institute. Prior to joining NYU, he was Professor of Emergency Medicine at Johns Hopkins, and Director of the Center for Advanced Modeling in the Social, Behavior, and Health Sciences, with Joint appointments in Economics, Applied Mathematics, International Health, and Biostatistics. Before that, he was Senior Fellow in Economic Studies at the Brookings Institution and Director of the Center on Social and Economic Dynamics.

Key Publications

- Generative Social Science: Studies in Agent-Based Computational Modeling (Princeton, 2006)
- Growing Artificial Societies: Social Science from the Bottom Up (MIT, 1996)
- Nonlinear Dynamics, Mathematical Biology, and Social Science (Wiley 1997)
J. Doyne Farmer is Director of the Complexity Economics programme at the Institute for New Economic Thinking at the Oxford Martin School, and the Baillie Gifford Professor at Mathematical Institute at the University of Oxford, as well as an External Professor at the Santa Fe Institute.

His current research is in economics, including agent-based modeling, financial instability and technological progress. He was a founder of Prediction Company, a quantitative automated trading firm that was sold to the United Bank of Switzerland in 2006. His past research includes complex systems, dynamical systems theory, time series analysis and theoretical biology.

During the eighties he was an Oppenheimer Fellow and the founder of the Complex Systems Group at Los Alamos National Laboratory. While a graduate student in the 70’s he build the first wearable digital computer, which was successfully used to predict the game of roulette.
Matheus Grasselli

Professor of Mathematics, McMaster University and the Fields Institute, Toronto

Matheus Grasselli is a Professor of Mathematics and Chair of the Mathematics of Statistics Department at McMaster University and the Director of the Centre for Financial Industries at the Fields Institute for Research in Mathematical Sciences in Toronto. He has a PhD from King's College London and has published research papers on information geometry, statistical physics, and numerous aspects of quantitative finance, including interest rate theory, optimal portfolio, real options, executive compensation, and macroeconomics. He is also the author of an undergraduate textbook on numerical methods. He is a regular speaker in both academic and industrial conference around the world and has consulted for CIBC, Petrobras, EDF, and Bovespa. A member of the editorial board of the Journal of Banking and Finance, the International Journal of Theoretical and Applied Finance, and the Journal of Dynamics and Games, he is also the founding managing editor of the book series Springer Briefs on Quantitative Finance.
Joel Guiot is president of the CNRS interdisciplinary committee in charge of interdisciplinary research on environment, health and sustainable development (CID 45). He is a member of the editorial board of the electronic Journal Climate of the Past.

He was responsible for the team Continental and Marine Ecosystems of CEREGE (2000-2011) and in 2012 launched a new transversal team of CEREGE devoted to modelling. He is director of the interdisciplinary federation ECCOREV that he also launched. He was a member of the scientific council of the University P. Cézanne (2007-2011) and president of the scientific council of the French CNRS/INSU programme, funding research on global change, called EVE (2006-2009).

His research has been devoted to developing mathematical methods for dealing with biological indicators of climate change (pollen, tree rings). He showed in 1989 how the climate evolved over the last 140 000 years in our region as a result of changes in the Earth’s orbit (his first Nature paper). His involvement in the creation of international databases bringing together European and African pollen data enabled him, with his colleagues to map past climate and to test the robustness of climate models in simulating climates very different from the present one. His current research focuses in particular on climate variability of the last ten thousand years in Africa, Europe and the Mediterranean basin and the impact of climate change on Mediterranean vegetation. He has also been heavily involved in the training of researchers in statistical methods from software he developed for his discipline.

He obtained his Master in Physical Sciences (in 1978) at the University of Louvain-La-Neuve, Belgium and his Ph.D. degree (in 1981) in palaeoclimatology at the same university (supervision A. Berger). He obtained a postdoctoral fellowship Pierre and Marie Curie (European Union) in University of Marseille (1983-1984) followed by another post-doctoral fellowship of NSERC (Canada) in the Canadian Climatic Center of Environment Canada in Toronto (1984-1985). He became a junior researcher with a permanent position at CNRS in the Laboratory of Historical Botany of Marseille (a part of the present IMBE) in 1985. He moved to CEREGE in 2000. He started his career as physicist, then worked with ecologists and now with geoscientists.
James J. Heckman is the Henry Schultz Distinguished Service Professor of Economics at the University of Chicago, a Nobel Memorial Prize winner in economics and an expert in the economics of human development. Through the university’s Center for the Economics of Human Development, he has conducted groundbreaking work with a consortium of economists, developmental psychologists, sociologists, statisticians and neuroscientists showing that quality early childhood development heavily influences health, economic and social outcomes for individuals and society at large. Heckman has shown that there are great economic gains to be had by investing in early childhood development.

Heckman received his B.A. in mathematics from Colorado College in 1965 and his Ph.D. in economics from Princeton University in 1971. Since 1973, he has served as a professor of economics at the University of Chicago, where he directs the Economics Research Center, the Center for the Economics of Human Development, and the Center for Social Program Evaluation at the Harris School of Public Policy. He is a professor of law at the University of Chicago School of Law, senior research fellow at the American Bar Foundation, and research fellow at the Institute for Fiscal Studies.

Professor Heckman’s work has been devoted to the development of a scientific basis for economic policy evaluation, with special emphasis on models of individuals and disaggregated groups, and to the problems and possibilities created by heterogeneity, diversity and unobserved counterfactual states. In the early 1990s, his pioneering research on the outcomes of people who obtain the GED certificate received national attention. His findings, which found great deficiencies in the alleged value of the degree, spurred debates across the country on the merits of obtaining the certificate.

His recent research focuses on human development and lifecycle skill formation, with a special emphasis on the economics of early childhood development. His research has given policymakers important new insights into such areas as education, job-training programs, minimum-wage legislation, anti-discrimination law, social supports and civil rights.

He is currently editor of the Journal of Political Economy. He is also a member of the National Academy of Sciences, the Econometric Society, the Society of Labor Economics and the American Statistical Association, and a fellow of the American Academy of Art and Sciences.
William Hynes

NAEC Co-ordinator, OECD

William Hynes is the Acting Head of the New Approaches to Economic Challenges Unit (NAEC) which provides a space to question traditional economic ideas and offer new economic narratives, new tools, methods and policy approaches. He previously worked as an Advisor in the Sherpa and Global Governance Unit, a policy analyst in the Development Co-operation Directorate and an economic affairs officer at the World Trade Organisation. William is an Adjunct Professor in International Economics at the Johns Hopkins University School of Advanced International Studies, has a doctorate from Oxford University and was a Marie Curie Fellow at the London School of Economics.
Michael Jacobs

Professorial Research Fellow, Sheffield Political Economy Research Institute (SPERI)

Michael is an economist and visiting professor in the School of Public Policy at University College London. From 2004–2007 he was a member of the Council of Economic Advisers at the Treasury, and from 2007–2010 a special adviser to the prime minister, with responsibility for energy, environment and climate policy. From 2010–2015 he advised governments and others on international climate change policy in the run-up to the UN Climate Conference in Paris in December 2015. He was a founder and senior adviser to the Global Commission on the Economy and Climate, for whose reports Better Growth, Better Climate (2014) and Seizing the Global Opportunity (2015) he was a lead author.


Key Publications
- Prosperity and Justice: A Plan for the New Economy (IPPR, 2018)
- Paradigm shifts in economic theory and policy (Academic paper, 2018)
- Rethinking Capitalism: Economics and Policy for Sustainable and Inclusive Growth (Book with M. Mazzucato, 2016)
Alan Kirman obtained his PhD from Princeton and has been professor of economics at Johns Hopkins University, the Université Libre de Bruxelles, Warwick University, and the European University Institute in Florence, Italy. He was elected a fellow of the Econometric Society and of the European Economic Association and awarded the Humboldt Prize in Germany. He is member of the Institute for Advanced Study in Princeton. He was elected as a foreign member of the Accademia dei Lincei in Rome, the oldest academy in the world, this year.

He has published 150 articles in international scientific journals and on the editorial board of several international journals. He also is the author and editor of fifteen books, most recently Complex Economics: Individual and Collective Rationality, which was published by Routledge in July 2010 and Complexity and Evolution: Toward a New Synthesis for Economics edited with David S. Wilson published by MIT Press in 2016.

His original interests focused mainly on theoretical economics and in particular general equilibrium theory and game theory. However, as the problems with the foundations of modern theoretical economics have become clearer his interests have turned to looking at the empirical evidence as to how the economy in general and some markets in particular function. He has become increasingly involved in modelling the economy and markets as complex adaptive systems in which aggregate behaviour emerges from the interaction between rather simple economic agents with limited knowledge. Economic actors are perhaps closer to ants than to *homo oeconomicus*.

**Key Publications**

- Complexity and Evolution: Toward a New Synthesis for Economics (Book, 2016)
Penny Mealy is a post-doctoral researcher at the Institute of New Economic Thinking and the School of Geography and the Environment and is currently working on the Oxford Martin School Programme on the Post-Carbon Transition. She is also leading a project on 'Practical Wisdom in a Complex World' at the Bennett Institute of Public Policy at the University of Cambridge.

Penny’s PhD at Oxford was on quantitative approaches for analysing productive capabilities. She applied these methods to provide insights into long-run development, the division of labour and the transition to the green economy. Her broader research interests include economic complexity, technological evolution, transformational change, network science and agent-based modelling. Previously, Penny worked as an economist in Australia, where she predominantly focused on issues relating to energy, resources and climate change.
Gabriela Ramos

OECD Chief of Staff and Sherpa to the G20

Gabriela Ramos is the OECD Chief of Staff and Sherpa to the G20, and in this capacity supports the Secretary General’s leadership. She is responsible for the contributions of the OECD to the global agenda, including in the G20, G7, APEC and oversees the Global Relations Secretariat. She promoted the G20 Gender target, as well as the G20 Global Forum on Steel Excess Capacity, the G20 Climate and Growth analysis and the G7 Business for Inclusive Growth, among many other deliverables. She leads the Inclusive Growth Initiative and the New Approaches to Economic Challenges and oversees the Employment and Social Affairs work (including gender work).

Previously, she served as Head of the OECD Office in Mexico and Latin America, coordinating several reports on Mexico to advance the health and education reform. She contributed to the implementation of the “Seguro Popular” to give access to health services to a large share of uncovered population, and helped established the National Institute for Evaluation of Education. She developed the OECD's Mexico Forum and edited and launched the “Getting it Right” flagship publication series.

Prior to joining the OECD, Ms Ramos held several positions in the Mexican Government, and launched a consultancy firm leading major environmental and social projects. She was also Professor of International Economy at the Universidad Iberoamericana and at the Instituto Tecnológico Autónomo de México. Ms Ramos holds an MA in Public Policy from Harvard University, and is a Fulbright and Ford MacArthur fellow. She was decorated with the Ordre du Merit by the President of France, François Hollande, in 2013. Her work to promote gender equality earned her the 2017 and 2018 Forbes Excellence award as well as being included, for two consecutive years (2018-2019) as part of Apolitico 100 most influential people on gender. She is member of the board of the Paris Peace Forum and the Advisory Board of UNICEF.
Elena Rovenskaya

Director of the Advanced Systems Analysis Programme at the International Institute for Applied Systems Analysis (IIASA)

Elena Rovenskaya is the Programme Director of the Advanced Systems Analysis (ASA) Programme at the International Institute for Applied Systems Analysis (IIASA). Her scientific interests lie in the fields of optimization, decision sciences and mathematical modeling of complex socio-environmental systems.

Dr. Rovenskaya graduated in 2003, from the Faculty of Physics, Lomonosov Moscow State University, Russia. She received her PhD in 2006 from the Faculty of Computational Mathematics and Cybernetics of the same university. The title of her PhD thesis was "On solving the problem of finding the optimal compatibility parameter value for a class of equations in a normalized space." Since 2006, she has been working at the Faculty of Computational Mathematics and Cybernetics as a researcher (since 2013 - on leave). Also since 2006 she has been collaborating with IIASA. In 2013, she was appointed the ASA Program Director. In this function, Dr. Rovenskaya is leading a team of 35+ scientists who focus the latest developments in applied mathematics and modeling to develop, test, and make available new quantitative and qualitative methods to address problems that arise in the policy analysis of complex socio-environmental systems. ASA activities focus on methods used to support decisions in the presence of uncertain and volatile input data, ambiguous stakeholder interests, and complex underlying systems.
Stefano Scarpetta

Director for Employment, Labour and Social Affairs at the OECD

Mr Scarpetta joined the OECD in 1991 and held several positions in the Economics Department and in his current Directorate. He led several large-scale research projects, including: “Implementing the OECD Jobs Strategy”; the “Sources of Economic Growth in OECD Countries”; and contributed to others including “The Policy Challenges of Population Ageing” and “The Effects of Product Market Competition on Productivity and Labour Market Outcomes”. From 2002 to 2006 he worked at the World Bank, where he took over the responsibility of labour market advisor and lead economist. In this capacity, he coordinated a Bank-wide research program of Employment and Development and contributed extensively to the Bank’s investment climate assessments. He returned to the Economics Department of the OECD in November 2006 where he became the head of the Country Studies Division in charge of Japan, Korea, China, India, Mexico, Portugal, Denmark and Sweden. From March 2008 to June 2010, he was the editor of the OECD Employment Outlook and the Head of the Employment Analysis and Policy Division of the Directorate of Employment, Labour and Social Affairs (DELSA). He became the Deputy Director of DELSA in June 2010 and in May 2013 he became Director.


Mr Scarpetta holds a Ph.D. in Economics from the Ecole des Hautes Etudes en Science Sociales (EHESS), Département et Laboratoire d’Economie Théorique Appliquée (DELT A) in Paris and a Master of Science in Economics from the London School of Economics and Political Science.
Andrew Sheng

Distinguished fellow at Fung Global Institute, Chief Advisor to the China Banking Regulatory Commission, and a Board Member of the sovereign wealth fund of Malaysia

Adjunct Professor at the Graduate School of Economics and Management, Tsinghua University, Beijing; Pro-Chancellor of the Universiti Tun Abdul Razak, Malaysia; Adjunct Professor and Third Holder of the Tun Ismail Ali Chair at the Faculty of Economics & Administration, University of Malaya; member of International Council of the Freie University, Berlin and the Governing Council of the International Centre for Education in Islamic Finance (INCEIF)

Andrew Sheng is a member of the IMF’s External Advisory Group on its 2014 Triennial Surveillance Review, the CFA Institute’s Future of Finance Advisory Council, the International Advisory Panel to the Australian Treasury’s Financial System Inquiry, and an advisor to the United Nations Environment Program Inquiry into the Design of a Sustainable Financial System. He has been Co-Chair of the OECD-ADBI Roundtable Conference on Capital Market Reform in Asia since 2005.

In Malaysia, he is a member of the National Economic Advisory Council (NEAC), the Advisory Council of the Iskandar Regional Development Authority and the International Advisory Panel of the Labuan Offshore Financial Services Authority (LOFSA); and a Board Member of Khazanah Nasional Berhad (Malaysian sovereign wealth fund).

Mr. Sheng is also actively engaged in China, as a member of the International Advisory Council of the China Investment Corporation (sovereign wealth fund), the China Development Bank, and the Advisory Council on Shanghai as an International Financial Centre.

Other international/regional appointments include Board Member of the Qatar Financial Centre Regulatory Authority, Board Member of the Advisory Council of the National Institute of Securities Market, India (NISM), member of the Advisory Board of the Emerging Markets Forum; and

A chartered accountant by training, he holds a BSc in Economics and an Honorary Doctorate from the University of Bristol. In 2013, Time Magazine named Andrew Sheng as one of the 100 most influential people in the world.
Ambassador Irena Sodin took up her duties as Permanent Representative of Slovenia to the OECD on 13 February 2017.

Ms. Sodin holds a degree in Economics from the University of Ljubljana; she took part in the Executive Development Programme of the World Bank at Harvard University in 1999 as well as the International Visitor Leadership Programme at the US State Department in 2003.

In 1983, Ms. Sodin joined Ljubljanska banka, the largest Slovenian bank, as a member of the Export Credit Department promoting Slovenian exporters chiefly in the Western markets. In 1996, Ms. Sodin joined the Ministry of Finance where she held a number of high-ranking positions: from 1997 to 2001, she was Senior Adviser and Undersecretary of State at the Office of the Minister and the International Department; from 2001 to 2005, Ms. Sodin was Head of the International Department, from 2001 to 2005, she was a member of the Administrative Council of the CEB, then Vice-Chairperson and Chair of the Board of the Centre of Excellence in Finance.

From 2005 to 2014, Ms. Sodin joined the European Bank for Reconstruction and Development as an Adviser and Alternate Director in the Constituency Office of Belgium, Luxembourg and Slovenia.

From 2014 until her appointment as Permanent Representative of Slovenia to the OECD, she was State Secretary at the Ministry of Finance and member of the Economic and Financial Committee for Slovenia at the EU.