

Media Information

Press talks at #LiNo16, Mo.-We., Marionettenoper (Stadttheater)

Aimed at the accredited journalists, select media partners of the Lindau Nobel Laureate Meetings will present a "press talk" to cover topical issues of wide interest. A panel of Nobel Laureates, young scientists, and expert guests will discuss the given topic with each other and then take questions from the audience.

Scientists in motion: how immigration continues to shape the scientific world

pres. by Physics World, Mo. 27 June, 16.45-17.30 hrs. moderator: Hamish Johnston, editor of physicsworld.com

A recent study by Physics World shows that more than 25% of physics Nobel laureates are immigrants, a figure that reflects the importance of human migration in science. Scientists move country for many different reasons. Some are seeking better professional opportunities while others move for family reasons. And unfortunately, some scientists are forced to leave their home countries to escape political, religious or other persecution. This panel will explore immigration through the personal experiences of Nobel laureates and students and look at the pros and cons of having a highly mobile scientific workforce.

Panellists:

Martin Karplus, who shared the 2013 Nobel Prize in Chemistry for his work in theoretical chemistry. Born into a Jewish family in Vienna, he fled Austria at the age of eight, just days after Germany annexed the country. The Karplus family travelled to the US and settled in Boston, where Karplus grew up and became an American citizen.

Dan Shechtman, who was awarded the Nobel Prize in Chemistry in 2011 for his work on quasicrystals. Shechtman spent much of his early career working in the US before returning to his native Israel. He is currently at Technion University in Haifa and spends some of his time at Iowa State University and the nearby Ames National Laboratory in the US.

Winifred Ayinpogbilla Atiah, a PhD student in environmental/atmospheric physics at the Kwame Nkrumah University of Science and Technology in Ghana, where she is from. She experienced life as an immigrant in Senegal, where she studied for a Master's degree.

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Ana Isabel Maldonado Cid, a post-doctoral researcher, who did her PhD in condensed-matter physics in her native Spain before embarking on a career that has taken her to Germany and the UK. She is currently working in France in the field of nanofabrication at the clean room of the Institut Néel, CNRS-Grenoble.

Women in science

pres. by Deutsche Welle, Tu. 28 June, 15.00-15.45 hrs. moderator: Zulfikar Abbany, editor

From presidents to scientists: if ever it's a woman, she's the "first woman." Hillary Clinton is the US Democrat's first woman presidential nominee, and Professor Pascale Ehrenfreund is the first woman to head the German Aerospace Center. Both in 2016. How is it possible that it has taken this long? And how much longer will it be before societies around the world - specifically for Lindau, our international scientific communities – are normalised to the idea, the fact, of women holding top science jobs, earning equal pay (to their male counterparts), and that women push boundaries in research as hard, if not harder sometimes, than some men.

Marie Curie was one of the first Nobel Laureates ever. She was awarded her first in the field of physics two years after the prize was inaugurated. And as many know, she is one of the few scientists to have received two Nobel Prizes. But of the 900 Nobel Prizes awarded since 1901, including those in Economic Sciences, only 49 have gone to women. Outside in the real world, the scene for women doing day-today research can be equally grim. We may have a growing awareness that there's an issue, but we still lack understanding and action.

Whether it's the European Commission's bungled video campaign to encourage young women to study STEM (science, technology, engineering and mathematics) subjects, Nobel Laureate Tim Hunt's illadvised quip about working with women in labs, or astrophysicist Dr Matt Taylor's "gamer" shirt, have we got the conversation all wrong?

There are those who would rather we didn't have a conversation at all. There are those who think talking about women in science distracts us from the science itself.

What do you think? Let's talk about women in science and find out. Panellists:



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Takaaki Kajita, Nobel Laureate in Physics 2015, Director of the Institute for Cosmic Ray Research, University of Tokyo, Japan

Helga Nowotny, Vice-President of the Council for the Lindau Nobel Laureate Meetings; Chair of the European Research Area ERA Council Forum Austria; WWTF Vienna Science and Technology Fund, Austria

Ulrike Böhm, Postdoc at the Department of NanoBiophotonics, Max Planck Institute for Biophysical Chemistry; Platform Women in Research, Germany

Ayesha Azez, B.Sc., Department of Physics, University of Agriculture Faisalabad, Pakistan

Research 4.0: Can Artificial Intelligence get better than scientists in creating experiments?

pres. by Frankfurter Allgemeine Zeitung, We. 29 June, 12.30-13.15 hrs. moderator: Joachim Müller-Jung, head of division science/nature

First they came for the manual talks – cleaning up, serving, assembling products and machines, eventually driving cars and directing pattern recognition. Robots and artificial intelligence are about to revolutionize the industrial and private sector – and scare the public even more, if they are envisaged for military purposes. Now they are also eying up the careers in creative jobs, bringing into the scientific enterprise not just new research and adaptive analytical tools, but developing also as new masterminds inside the investigation process. Research robots replacing researchers? The most recent quantum experiments designed by algorithm "Melvin" at the University of Vienna or the complex physics experiments at the Australian National University which was communicated under the headline "Artificial intelligence replaces Physicists" are indicators of a new kind of creative, supernatural "intelligent excellency". During the FAZ press talk we will discuss, what kind of cooperation with deep learning AI systems are conceivable. How might the scientific training for young academics change? Is there a need to focus science education stringently on the programming skills to keep control over the process?

Panellists:

Vinton G. Cerf, ACM A.M. Turing Award 2004; Vice-President and Chief Internet Evangelist, Google, Inc., United States

Rainer Blatt, Council Member and Scientific Co-Chairman of the 2016 Lindau Meeting; Institute for Experimental Physics, University of



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Innsbruck & Institute for Quantum Optics and Quantum Information (IQOQI), Austrian Academy of Sciences, Austria

Jens Erler, Argelander-Institut für Astronomie, Department of Physics and Astronomy, University of Bonn, Germany

Mario Krenn, Vienna Center for Quantum Science and Technology, University of Vienna, Austria

Yuan-Sen Ting, Astronomy & Astrophysics Department, Faculty of Arts and Sciences, Harvard University, United States