



LINDAU
NOBEL LAUREATE
MEETINGS

73rd Lindau
Nobel Laureate
Meeting

Programme

30 June – 5 July 2024

MEETING PROGRAMME

This booklet contains the complete Scientific Programme, some of whose sessions may have restricted access (pre-registration required).

LATEST UPDATES

Access the latest version of the programme online via QR code or at programme.lindau-nobel.org.



YOUR PERSONALIZED SCHEDULE

In your personal documents handed out on arrival, you will find a list of exclusive events for which you have pre-registered or which have been arranged for you personally.

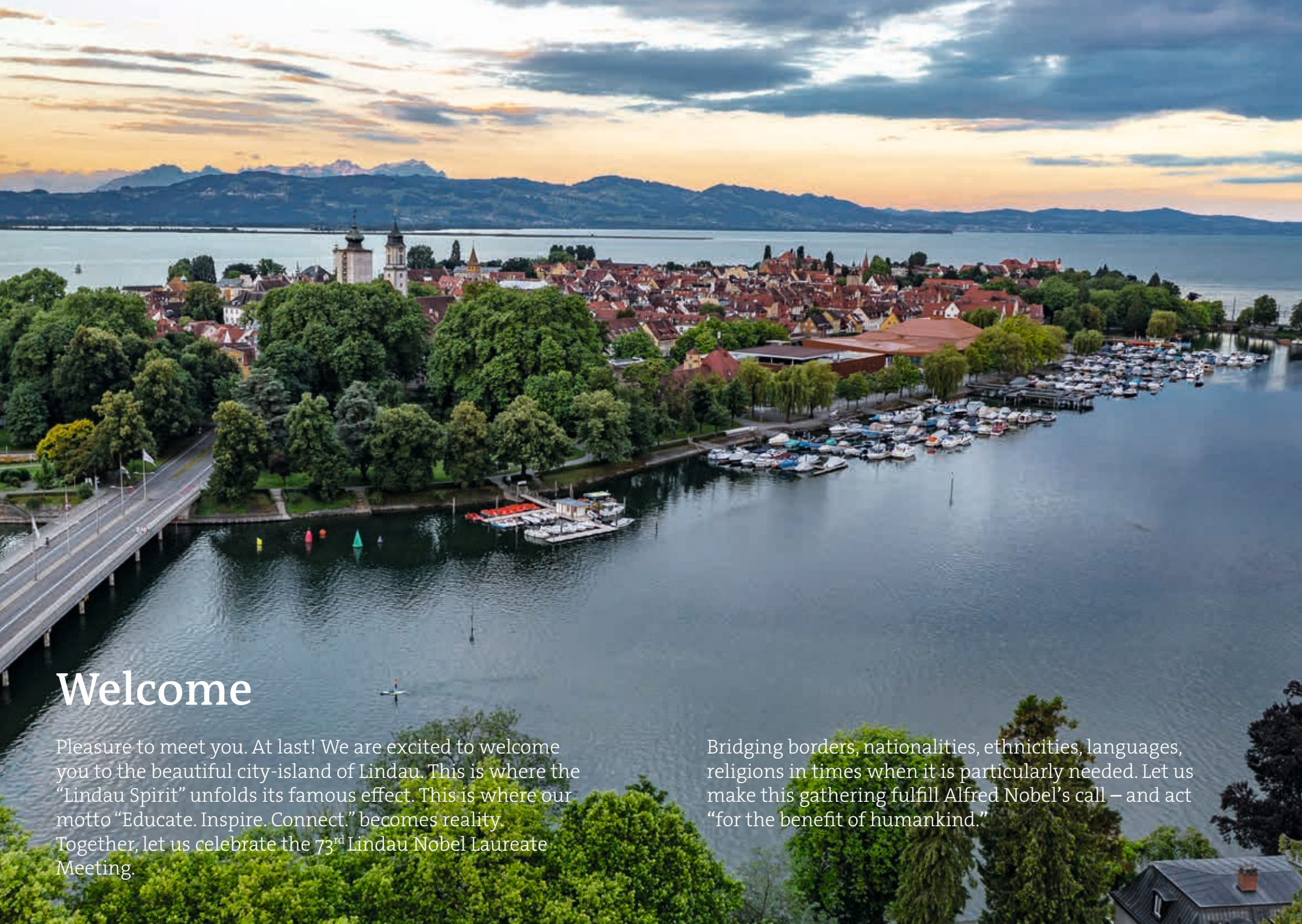
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KEY VISUAL

The cover design has been inspired by the 2023 Nobel Prize in Physics, awarded to Pierre Agostini, Ferenc Krausz, and Anne L'Huillier.

Through a combination of more and shorter wavelengths of light, and by utilizing the overtones in laser light, one can create pulses of light that are short enough to depict the processes occurring inside atoms and molecules.

Credit: agsandrew/Shutterstock.com



Welcome

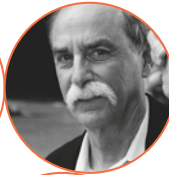
Pleasure to meet you. At last! We are excited to welcome you to the beautiful city-island of Lindau. This is where the “Lindau Spirit” unfolds its famous effect. This is where our motto “Educate. Inspire. Connect.” becomes reality. Together, let us celebrate the 73rd Lindau Nobel Laureate Meeting.

Bridging borders, nationalities, ethnicities, languages, religions in times when it is particularly needed. Let us make this gathering fulfill Alfred Nobel’s call – and act “for the benefit of humankind.”



Reinhard Genzel

David J. Wineland



Arthur B. McDonald



Hartmut Michel



Eric Betzig



William D. Phillips



Steven Chu



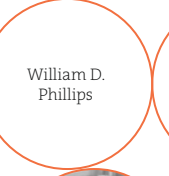
Anne L'Huillier



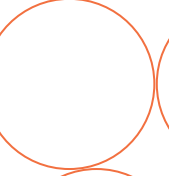
Dan Shechtman



Johann Deisenhofer



Gérard A. Mourou



Alain Aspect



F. Duncan M. Haldane



David J. Gross



J. Georg Bednorz



Gerardus 't Hooft



George F. Smoot



Kurt Wüthrich



Efim I. Zelmanov



Saul Perlmutter



Ada E. Yonath



Donna Strickland



Walter Gilbert



Anton Zeilinger



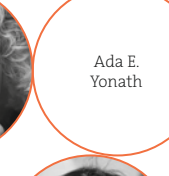
Didier Queloz



Takaaki Kajita



Stefan W. Hell



Brian D. Josephson



W.E. Moerner



Brian P. Schmidt



Robert Huber



John C. Mather



J. Michael Kosterlitz



Serge Haroche



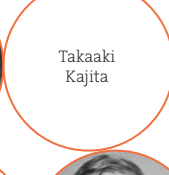
Sir Konstantin S. Novoselov



Klaus von Klitzing



Richard Henderson



Theodor W. Hänsch



Time	Sunday, 30 June	Monday, 1 July	Tuesday, 2 July	Wednesday, 3 July	Thursday, 4 July	Friday, 5 July
07		Partner Breakfasts • Austrian Federal Ministry of Education, Science and Research • Texas A&M University	Partner Breakfasts • Mars, Incorporated • Rolex SA			
08		Break Morning Workout	Break Morning Workout	Break Morning Workout	Partner Breakfasts • Heraeus Group • Human Frontier Science Program (HFSP)	Break Morning Workout
09		Lecture L'Huillier	Lecture Aspect	Next Gen Science presentations by Young Scientists • Physics-Based Solutions to the Energy Challenge • Cross-Disciplinary Research in Physics	Lecture Genzel	Social Event Baden-Württemberg Boat Trip to Mainau Island <i>hosted by the State of Baden-Württemberg</i>
10		Lecture Zeilinger	Lecture Henderson		Lecture Queloz	
11		Lecture Novoselov	Lecture Gross		Agora Talks • Smoot • Wüthrich	
12		Agora Talks • Chu, Hell • von Klitzing	Agora Talks • Bednorz, Betzig • Haldane, Kosterlitz	Agora Talks • Haroche, Wineland • Kajita	Agora Talks • Josephson • Phillips	Panel Discussion How to Preserve Trust in Science in the Age of AI? Christie, Gross, Schmidt, Strickland
13		Agora Talks • 't Hooft • Yonath	Agora Talks • Deisenhofer, Michel • Perlmutter	Agora Talks • Mather, Schmidt • Mourou, Strickland	Agora Talks • Moerner • Shechtman	Closing Ceremony
14		Break Lunch Break City Reception	Break Lunch Break Laureate Lunches	Break Lunch Break Laureate Lunches	Break Lunch Break Laureate Lunches	Concert West-Eastern Divan Ensemble Michael Barenboim
15	Opening Ceremony Countess Bettina Bernadotte Greetings Current Key Topics in Physics – A Survey by Steven Chu	Next Gen Science presentations by Young Scientists • Artificial Intelligence in Physics	Panel Discussion Potential and Hype in Quantum Technology: Where Are We Headed? Ezratty, Haroche, Oddershede, Phillips, Pietracaprina, Riel	Open Exchanges Haroche, Kajita, Mather, Schmidt, Strickland, Wineland	Open Exchanges Genzel, Hänsch, Huber, Josephson, Moerner, Phillips, Queloz, Smoot, Wüthrich	Social Event Science Picnic on the Arboretum Lawn <i>hosted by the Ministry of Science, Research, and Arts, State of Baden-Württemberg</i>
16	Musical Accompaniment Ensemble of the Vienna Philharmonic Orchestra				Science Walks	Social Event Baden-Württemberg Boat Trip to Lindau <i>hosted by the State of Baden-Württemberg</i>
17	Reception <i>hosted by the Bavarian State Government</i>	Open Exchanges Chu, Hell, 't Hooft, von Klitzing, L'Huillier, Novoselov, Yonath, Zeilinger	Open Exchanges Aspect, Bednorz, Betzig, Deisenhofer, Gross, Haldane, Henderson, Kosterlitz, Michel, Perlmutter	Scientific Exchange Among Young Scientists • Session 1 • Session 2	Workshops • How To Remove Obstacles for the International Movement of Early-Career Scientists • How To Create Bias-Free Review Procedures for Fellowships and Research Grants	
18		Science Walks				
19	Social Events Dinner <i>for Young Scientists</i>	Social Event International Evening <i>hosted by Texas A&M University</i>	Social Events Partner Events <i>hosted by Academic Partners & Supporters</i>	Heidelberg Lecture Zelmanov	Social Event Bavarian Evening <i>hosted by the Free State of Bavaria</i>	
20	Foundation Dinner <i>hosted by the Foundation Lindau Nobel Laureate Meetings</i>		Grill & Chill <i>hosted by the Lindau Nobel Laureate Meetings and supported by the City of Lindau</i>	Social Events Partner Events <i>hosted by Academic Partners & Supporters</i>		
21				Dinner <i>for Young Scientists</i>		

73rd Lindau Nobel Laureate Meeting

OPENING

Sunday, 30 June

14:30

We kindly ask you to take your seats by 14:15 at the latest.



Opening Ceremony

14:30
Inselhalle
Main Hall

Opening of the 73rd Lindau Nobel Laureate Meeting

A Welcome to Lindau
Countess Bettina Bernadotte
President of the Council

Albert Schweitzer in Lindau 70 Years Ago
– Remembering a Pivotal Moment for the Meetings

Greetings from Stockholm
Astrid Söderbergh Widding
Chairwoman of the Board, The Nobel Foundation, Sweden

Laureates' Greetings
Donna Strickland
University of Waterloo, Canada

Wolfgang Amadeus Mozart (1756–1791)
Allegro from Clarinet Quintet in A, K 581

Welcome Address
Bettina Stark-Watzinger
German Federal Minister of Education and Research

Wolfgang Amadeus Mozart (1756–1791)
Larghetto from Clarinet Quintet in A, K 581

Greetings from Austria
Martin Polaschek
Austrian Federal Minister of Education, Science, and Research

Wolfgang Amadeus Mozart (1756–1791)
Menuetto and Trio from Clarinet Quintet in A, K 581

Current Key Topics in Physics – A Survey
Steven Chu
Stanford University, United States of America

Introducing the Scientific Programme
Scientific Chairs of the 73rd Lindau Nobel Laureate Meeting
Rainer Blatt
University of Innsbruck, Austria
Heiner Linke
Lund University, Sweden

Wolfgang Amadeus Mozart (1756–1791)
Allegro con variazioni from Clarinet Quintet in A, K 581

A Welcome to Bavaria
Markus Blume
Bavarian State Minister of Science and the Arts

Ensemble of the Vienna Philharmonic
Andrea Götsch | Clarinet
Katharina Engelbrecht | Violin
Andreas Großbauer | Violin
Martin Lemberg | Viola
Jan Ryska | Cello

Masters of Ceremonies
Debatri Chattopadhyay, Cardiff University, United Kingdom
Adam Smith, Nobel Prize Outreach, Sweden

Social Event

16:30
Inselhalle
Main Foyer


Reception

hosted by the Bavarian State Government

18:00

Break**Social Event**

19:00–22:00
Inselhalle
Lounge


Young Scientists' Dinner

Access for Young Scientists only

Morning Workout Activate!

07:00 Access for pre-registered Young Scientists only
 Oscar-Groll-Anlage Please see your personalized schedule for details.

Partner Breakfast From Quantum Foundations to Emerging Quantum Technologies

07:00
 Bayerischer Hof
 Conference Room
 Konstanz 1–2

*hosted by the Austrian Federal Ministry of Education,
 Science and Research*



Rainer Blatt
University of Innsbruck, Austria

Serge Haroche
Collège de France

Yusuf Karli
University of Innsbruck, Austria

Anton Zeilinger
University of Vienna, Austria

Moderator: Markus Arndt
University of Vienna, Austria

Access for Nobel Laureates and pre-registered Young Scientists only
 Please see your personalized schedule for details.

Partner Breakfast The Role of Physics in Solving Global Problems of the 21st Century

07:00
 Forum am See

hosted by Texas A&M University, United States of America



Tatiana Erukhimova
Texas A&M University

William D. Phillips
National Institute of Standards and Technology (NIST), United States of America

Sarah Vickers
University of North Carolina at Chapel Hill, United States of America

Moderator: Adam Smith
Nobel Prize Outreach, Sweden

Access for Nobel Laureates and pre-registered Young Scientists only
 Please see your personalized schedule for details.

Lecture Attosecond Pulses of Light for the Study of Electron Dynamics

09:00
 Inselhalle
 Main Hall

Anne L'Huillier
Lund University, Sweden

Lecture A Voyage Through Quantum Wonderland

09:30
 Inselhalle
 Main Hall

Anton Zeilinger
University of Vienna, Austria

Lecture Materials for the Future

10:00
 Inselhalle
 Main Hall

Sir Konstantin S. Novoselov
*National University of Singapore
 University of Manchester, United Kingdom*

10:30 Break**Agora Talk Single Molecule Methods and a Physics Understanding of Biology | MINFLUX:**

11:00
 Inselhalle
 Main Hall

A New Physical Principle To Resolve Position and Movements of (Bio)Molecules Down to Angströms

Steven Chu
Stanford University, United States of America

Stefan W. Hell
Max Planck Institute for Multidisciplinary Sciences, Germany

Moderator: Lene Oddershede
Novo Nordisk Fonden, Denmark

Agora Talk The Quantum Hall Effect and our New SI Units

11:00
 Inselhalle

Klaus von Klitzing
Max Planck Institute for Solid State Research, Germany

Conference Room
 1–3

Moderator: Klaus Blaum
Max Planck Institute for Nuclear Physics, Germany

11:45 Break



International Day
TEXAS,
UNITED STATES OF AMERICA



We are honoured that Texas A&M University is hosting the Lindau Nobel Laureate Meetings' 2024 International Day.

Agora Talk **The Beauty of Mathematics in Science**

12:15 Gerardus 't Hooft
 Inselhalle *Utrecht University, Netherlands*
 Conference Room Moderator: Günther Dissertori
 1–3 *ETH Zurich, Switzerland*

Agora Talk **Physics for Underlying the Chemistry of Medical Biology**

12:15 Ada E. Yonath
 Inselhalle *Weizmann Institute of Science, Israel*
 Main Hall Moderator: Pernilla Wittung-Stafshede
 Chalmers University of Technology, Sweden

13:00 **Lunch Break**

Inselhalle *hosted by Texas A&M University*

Main Foyer and
 Lounge

**Next Gen Science** **Artificial Intelligence in Physics**

15:00 Quantum Machine Learning in High-Energy Physics
 Stadttheater *Vasilis Belis*
 ETH Zurich, Switzerland

Thorax-Encompassing Multi-Modality PET/CT Deep Learning Model for Resected NSCLC Prognostication: A Retrospective Multi-Centre Study

Jaryd Christie
University of Western Ontario, Canada

Automated Detection of Laser Cooling Schemes for Ultracold Atoms and Molecules

Anna Dawid-Łękowska
Flatiron Institute, United States of America

Optimizing Arpes Experiments Through AI: Achieving Precise Photon Beam Polarization With Graphene Calibration

Ridha Eddhib
University of West Bohemia, Czech Republic

Inferring Heisenberg Hamiltonians From a Spin Spectral Function for a Quantum Spin Liquid with Machine Learning

Netta Karjalainen
University of Helsinki, Finland

Combination of Artificial Intelligence and Disordered Medium to Overcome Long-Standing Dilemma of Ultrasound Imaging

Wei Wang
Nanjing University, China

Towards Aerodynamic Flow Predictions With Physics-Informed Neural Networks and Quantum Circuits

Simon Wassing
German Aerospace Center – DLR

Moderator: Rainer Blatt
University of Innsbruck, Austria

16:30 **Break**

Open Exchange**Steven Chu**

17:00

Discussion with Young Scientists

Inselhalle
Conference Room
L1–L2

Access for Nobel Laureates and Young Scientists only

Open Exchange**Stefan W. Hell**

17:00

Discussion with Young Scientists

Inselhalle
Conference Room 1

Access for Nobel Laureates and Young Scientists only

Open Exchange**Gerardus 't Hooft**

17:00

Discussion with Young Scientists

Hotel Bayer. Hof
Conference Room
Konstanz 3

Access for Nobel Laureates and Young Scientists only

Open Exchange**Klaus von Klitzing**

17:00

Discussion with Young Scientists

Hotel Bayer. Hof
Conference Room
Lindau

Access for Nobel Laureates and Young Scientists only

Open Exchange**Anne L'Huillier**

17:00

Discussion with Young Scientists

Inselhalle
Conference Room 2

Access for Nobel Laureates and Young Scientists only

Open Exchange**Sir Konstantin S. Novoselov**

17:00

Discussion with Young Scientists

Hotel Bayer. Hof
Conference Room
Konstanz 1–2

Access for Nobel Laureates and Young Scientists only

Open Exchange**Ada E. Yonath**

17:00

Discussion with Young Scientists

Inselhalle
Conference Room
6–7

Access for Nobel Laureates and Young Scientists only

Open Exchange**Anton Zeilinger**

17:00

Discussion with Young Scientists

Inselhalle
Conference Room 3

Access for Nobel Laureates and Young Scientists only

Science Walks**Informal Exchange**

17:00

Meeting Point: main entrance of the Inselhalle

Access for Nobel Laureates and pre-registered Young Scientists only

Please see your personalized schedule for details.

18:30

Break**Social Event****International Evening**

19:00–23:00

hosted by Texas A&M University, United States of America

Inselhalle

WelcomeMain Hall and Main
Foyer*Countess Bettina Bernadotte, President of the Council***Greetings***Timothy E. Liston, Consul-General,
U.S. Consulate-General Munich***Welcome Address***Alan Sams, Executive Vice President and Provost,
Texas A&M University***Cultural Performance and Dinner***Aggie Wranglers, Texas A&M University***Dance & Music***MaXin***Master of Ceremonies***Joerg Steiner, University Distinguished Professor,
Texas A&M University*

Informal Exchange

LAUREATE LUNCHEAS & SCIENCE WALKS


Please see your personalized schedule for details.



Morning Workout Invigorate!


07:00 Access for pre-registered Young Scientists only
 Oscar-Groll-Anlage Please see your personalized schedule for details.

**Partner Breakfast Complex Systems, Complex Challenges:
How Can Physicists Unlock New Approaches?**

07:00
 Forum am See
 George F. Smoot
DIPC – Donostia International Physics Center, Spain
 Abigail Stevenson
Mars, Incorporated, United Kingdom
 Young Scientist tba.
 Moderator: Adam Smith
Nobel Prize Outreach, Sweden

Access for Nobel Laureates and pre-registered Young Scientists only
 Please see your personalized schedule for details.

**Partner Breakfast Perpetual Planet Initiative:
Excellence in Science and Exploration**

07:00
 Hotel Bayer. Hof
 Conference Room
 Konstanz 1–2
 Tom Matthews
King's College London, United Kingdom
 Brian P. Schmidt
The Australian National University, Australia

Moderator: Helen Czerski
University College London, United Kingdom

Access for Nobel Laureates and pre-registered Young Scientists only
 Please see your personalized schedule for details.

**Lecture From Einstein and Bell to Quantum Technologies:
Quantum Non-Locality in Action**

09:00
 Inselhalle
 Main Hall
 Alain Aspect
Université Paris-Saclay, France

Lecture The Impact of Physics in Structural Biology

09:30
 Inselhalle
 Main Hall
 Richard Henderson
MRC Laboratory of Molecular Biology, United Kingdom

**Lecture Fifty Years of Quantum Chromodynamics
(The Theory of The Strong Nuclear Force)**

10:00
 Inselhalle
 Main Hall
 David J. Gross
University of California, Santa Barbara, United States of America

10:30 Break**Agora Talk Opportunities and Challenges for the Energy Transition**

11:00
 Inselhalle
 Main Hall
 J. Georg Bednorz
IBM Research GmbH, Switzerland
 Eric Betzig
University of California, Berkeley, United States of America
 Moderator: Jürgen Mlynek
Wilhelm and Else Heraeus Foundation, Germany

Agora Talk Topology, Matter and Quantum Information

11:00
 Inselhalle
 Conference Room
 1–3
 F. Duncan M. Haldane
Princeton University, United States of America
 J. Michael Kosterlitz
Brown University, United States of America
 Moderator: Achim Rosch
University of Cologne, Germany

11:45 Break

Agora Talk

12:15

Inselhalle
Conference Room
1–3**The Future of Structural Biology:
Artificial Intelligence and in Situ Structures**Johann Deisenhofer
*University of Texas Southwestern Medical Center, United States of America*Hartmut Michel
*Max Planck Institute of Biophysics, Germany*Moderator: Wolfgang Lubitz
*Max Planck Institute for Chemical Energy Conversion, Germany***Agora Talk**

12:15

Inselhalle
Main Hall**Saul Perlmutter***University of California, United States of America*Moderator: Stefan H.E. Kaufmann
Max Planck Institute for Infection Biology, Germany

13:00

Inselhalle
Main Foyer and
Lounge**Lunch Break**

13:15

Various Locations

Laureate Lunches

Access for Nobel Laureates and pre-registered Young Scientists only

Please see your personalized schedule for details.

**Panel Discussion**

15:00

Inselhalle
Main Hall**Potential and Hype in Quantum Technology:
Where Are We Headed?**Olivier Ezratty
*Author on Quantum Technologies, France*Serge Haroche
*Collège de France*Lene Oddershede
*Novo Nordisk Fonden, Denmark*William D. Phillips
*National Institute of Standards and Technology (NIST), United States of America*Francesca Pietracaprina
*Algorithmiq, Finland*Heike E. Riel
IBM Research – Zurich, Switzerland

Young Scientist tba.

Moderator: Karl Ziemelis
NATURE, United Kingdom

This Panel Discussion aims to explore the current landscape and future directions of quantum technologies. The session will critically assess the state-of-the-art advancements and address the prevailing hype, particularly surrounding quantum information processing. The panellists will delve into various aspects of quantum technologies, including quantum computing, where they will evaluate the realistic capabilities and limitations of current advancements.

We intend for the discussion to encompass not just quantum computing, but also related technologies such as quantum metrology and sensing, quantum simulations, quantum communication, and the fundamentals of quantum science.

The panel discussion will provide insights into practical applications and theoretical advancements, helping to separate realistic expectations from overhyped projections. As we approach the 100th anniversary of quantum physics in 2025, this discussion will offer a timely opportunity to showcase the current status and future potential of quantum technologies. The session aims to give a balanced and forward-looking perspective, designed to inform and inspire the next generation of scientists and industry leaders.

16:30

Break

An aerial photograph of a waterfront resort at dusk. The scene features a large body of water on the left, a long wooden pier extending into it, and a marina filled with boats. The resort buildings are illuminated with warm lights, and a large orange circle is overlaid on the left side of the image, containing the event details.

Tonight
PARTNER EVENTS
AND GRILL & CHILL
Tuesday, 2 July
19:00

Open Exchange**Alain Aspect**

17:00

Discussion with Young Scientists

Inselhalle

Access for Nobel Laureates and Young Scientists only

Conference Room 1

Open Exchange**J. Georg Bednorz**

17:00

Discussion with Young Scientists

Forum am See

Access for Nobel Laureates and Young Scientists only

Open Exchange**Eric Betzig**

17:00

Discussion with Young Scientists

Inselhalle

Access for Nobel Laureates and Young Scientists only

Conference Room

L1–L2

Open Exchange**Johann Deisenhofer**

17:00

Discussion with Young Scientists

Hotel Bayer. Hof

Access for Nobel Laureates and Young Scientists only

Conference Room

Konstanz 3

Open Exchange**David J. Gross**

17:00

Discussion with Young Scientists

Inselhalle

Access for Nobel Laureates and Young Scientists only

Conference Room 3

Open Exchange**F. Duncan M. Haldane**

17:00

Discussion with Young Scientists

Hotel Bayer. Hof

Access for Nobel Laureates and Young Scientists only

Conference Room

Lindau

Open Exchange**Richard Henderson**

17:00

Discussion with Young Scientists

Inselhalle

Access for Nobel Laureates and Young Scientists only

Conference Room 2

Open Exchange**J. Michael Kosterlitz**

17:00

Discussion with Young Scientists

Inselhalle

Access for Nobel Laureates and Young Scientists only

Conference Room

6–7

Open Exchange**Hartmut Michel**

17:00

Discussion with Young Scientists

Hotel Bayer. Hof

Access for Nobel Laureates and Young Scientists only

Conference Room

Reichenau

Open Exchange**Saul Perlmutter**

17:00

Discussion with Young Scientists

Hotel Bayer. Hof

Access for Nobel Laureates and Young Scientists only

Conference Room

Konstanz 1–2

18:30

Break**Social Event****Grill & Chill: Connecting Cultures**

19:00–22:00

hosted by the Lindau Nobel Laureate Meetings and supported by the City of Lindau

Toskanapark



Access by invitation only

Please see your personalized schedule for details.

Social Event**Partner Events**

19:00–22:00

hosted by Academic Partners & Supporters

Various Locations



Access by invitation only

Please see your personalized schedule for details.

Morning Workout Energize!

07:00 Access for pre-registered Young Scientists only
 Oscar-Groll-Anlage Please see your personalized schedule for details.

Next Gen Science Cross-Disciplinary Research in Physics

09:00 Towards Robust, Portable, Point-Of-Need Diagnostics
 Inselhalle Using Silicon Photonic Biosensors
 Main Hall Samantha Grist
University of California, Berkeley, United States of America

Time-Dependent Biochemical Signaling: Mechanisms and Perspectives
 Lauritz Hahn
École normale supérieure de Paris, France

Transforming Disease Detection: Simulated Lamp Results for HIV,
 COVID-19, and TB Diagnostics
 Mosidi Mokoena
University of Cape Town, South Africa

Medical X-Ray Imaging: From Macroscopic Measurements to
 Quantum Imaging
 Mats Persson
KTH Royal Institute of Technology, Sweden

Improving Pancreatic Cancer Therapy With Carbon Ion Mini-Beams
 Christina Stengl
German Cancer Research Center

Overshooting Climate Targets – Increased Risks for Planetary
 Stability
 Nico Wunderling
Potsdam Institute for Climate Impact Research, Germany

Turbulent Fluid Dynamics in Antarctic Ice Shelf Melt Predictions
 Claire Yung
Australian National University

Moderator: Stefan H.E. Kaufmann
Max Planck Institute for Infection Biology, Germany

Next Gen Science Physics-Based Solutions to the Energy Challenge

09:00 Light Rectification for Conversion of Electromagnetic Energy Into
 Stadttheater Electrical Current
 Joao Cunha
International Iberian Nanotechnology Laboratory, Portugal

Designing Magnetic Nano-Whirls to Enable Efficient Computing
 Hariom Jani
University of Oxford, United Kingdom

Ultrafast Charge Transfer in Donor-Acceptor Molecules Unraveled
 with Attosecond Pump-Probe Spectroscopy
 Federico Vismarra
ETH Zurich, Switzerland

Engineering Energy Transport in Bio-Inspired Materials:
 Does Nature Know Better?
 Giulia Lo Gerfo Morganti
ICFO – The Institute of Photonic Sciences, Spain

A Good Candidate for Efficient Cooling and Energy Harvesting
 Youri Nouchokgwe Kamgue
Luxembourg Institute of Science and Technology

Ultrafast, Ultrathin, Ultratunable: Spintronics in 2D Materials
 Nele Stetzuhn
Freie Universität Berlin, Germany

Enhancements in Stability and Efficiency of Perovskite Solar Cells
 Through P(VDF-TRFE) Additive Engineering
 Grace Tabi
Australian National University

Moderator: Wolfgang Lubitz
Max Planck Institute for Chemical Energy Conversion, Germany

10:30 **Break**

Present Your Research
NEXT GEN SCIENCE

Monday, 1 July
15:00

Wednesday, 3 July
09:00



Agora Talk **Quantum Science With Trapped Ions and Rydberg Atoms**

11:00
Inselhalle
Conference Room 1–3

Serge Haroche
Collège de France

David J. Wineland
University of Oregon, United States of America

Moderator: Lene Oddershede
Novo Nordisk Fonden, Denmark

Agora Talk **Experiments to Measure Neutrino Properties**

11:00
Inselhalle
Main Hall

Takaaki Kajita
University of Tokyo, Japan

Moderator: Adam Smith
Nobel Prize Outreach, Sweden

11:45 **Break****Agora Talk** **The Greatest Challenges in Cosmology, and How They Could Be Resolved**

12:15
Inselhalle
Conference Room 1–3

John C. Mather
NASA, United States of America

Brian P. Schmidt
The Australian National University, Australia

Moderator: Adam Smith
Nobel Prize Outreach, Sweden

Agora Talk **Extreme Light Laser and Its Societal Applications**

12:15
Inselhalle
Main Hall

Gérard A. Mourou
Université Paris-Saclay, France

Donna Strickland
University of Waterloo, Canada

Moderator: Anne L'Huillier
Lund University, Sweden


13:00 **Lunch Break**

Inselhalle
Main Foyer and Lounge


13:15 **Laureate Lunches**

Various Locations

Access for Nobel Laureates and pre-registered Young Scientists only
Please see your personalized schedule for details.


Open Exchange **Serge Haroche**

15:00
Hotel Bayer. Hof
Conference Room Konstanz 3

Discussion with Young Scientists
Access for Nobel Laureates and Young Scientists only

Open Exchange **Takaaki Kajita**

15:00
Inselhalle
Conference Room 2

Discussion with Young Scientists
Access for Nobel Laureates and Young Scientists only

Open Exchange **John C. Mather**

15:00
Hotel Bayer. Hof
Conference Room Konstanz 1–2

Discussion with Young Scientists
Access for Nobel Laureates and Young Scientists only

Open Exchange**Brian P. Schmidt**

15:00

Discussion with Young Scientists

Hotel Bayer. Hof
Conference Room
Lindau

Access for Nobel Laureates and Young Scientists only

Open Exchange**Donna Strickland**

15:00

Discussion with Young Scientists

Inselhalle
Conference Room 3

Access for Nobel Laureates and Young Scientists only

Open Exchange**David J. Wineland**

15:00

Discussion with Young Scientists

Inselhalle
Conference Room
6–7

Access for Nobel Laureates and Young Scientists only

16:30

Break**Scientific Exchange****Among Young Scientists****Session 1**

17:00

Extracting Energy From Black Holes

*Arman Tursunov**Max Planck Institute for Radio Astronomy, Germany*

Inselhalle

Searching for New Physics in the Gravitational-Wave Era

*Anna Chrysostomou**University of Johannesburg, South Africa*

Main Hall

How Does the Proton Look From the Inside?

*Juliane Haug**Eberhard Karls Universität Tübingen, Germany*

The Big Bang in the Lab

*Aleksas Mazeliauskas**Heidelberg University, Germany*

Quantum Technologies: Out of the Lab and Into the Wild

*Max Carey**University of Southampton, United Kingdom*

Entanglement-Based Tests of the Quantum Nature of Gravity

*Martine Schut**University of Groningen, Netherlands*

Breaking the Ice – The Seasonal Pulse of Arctic Sea Ice

*Luisa von Albedyll**Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Germany*

Moderator: Heiner Linke

Lund University, Sweden

A large group of people are seated at tables in a restaurant or dining hall. The room has large windows that look out onto a cityscape with greenery and buildings. The people are engaged in conversation and eating. The lighting is warm and indoor. An orange semi-circular graphic is overlaid on the top right corner of the image.

Tonight
PARTNER EVENTS
& DINNER

Wednesday, 3 July
19:45

**Scientific Exchange
Among Young
Scientists**

17:00

Stadttheater

Session 2**Building a Quantum Computer, One Atom at a Time***Adam Shaw**California Institute of Technology, United States of America***Wormholes and Curvature Singularities: A Peculiar Space-Time***Juan Del Águila Rodríguez**Universidad Autónoma Metropolitana, Mexico***Green Photonics***Dipa Ghindani**Harvard University, United States of America***A Look Into the Physics Education System in Africa,
Zambia in Particular***Chilufya Mwewa**Brookhaven National Laboratory, United States of America***How Does a Quantum Particle Escape?***Takano Taira**The University of Tokyo, Japan***Strong Gravitational Lensing With James Webb Space Telescope***Barbora Bezděková**Charles University, Czech Republic***How Our Own Galaxy Really Looks Like and Why We Should Care***Gordian Edenhofer**Max Planck Institute for Astrophysics, Germany***Moderator: Peter Brzezinski***Royal Swedish Academy of Sciences, Sweden*

18:30

Break**Heidelberg****Lecture**

19:00

Inselhalle

Main Hall

What Do Mathematicians Think About?

Efim I. Zelmanov

*University of California, San Diego, United States of America***Social Event**

19:45–21:30

Inselhalle

Lounge

**Young Scientists' Dinner**

Access for Young Scientists only

Social Event

19:45–21:30

Various Locations

**Partner Events***hosted by Academic Partners & Supporters*

Access by invitation only


Please see your personalized schedule for details.

Morning Workout Vitalize!

07:00 Access for pre-registered Young Scientists only
 Oscar-Groll-Anlage Please see your personalized schedule for details.

Partner Breakfast The Role of Enterprises in Our Society and How Scientists Can Help Shape Them

07:00
 Hotel Bayer. Hof
 Conference Room
 Konstanz 1–2

 **hosted by Heraeus Group**

Steven Chu
Stanford University, United States of America

Sabrina Curtis
Khanjur R&D, LLC, United States of America

Jürgen Kluge
Foundation Lindau Nobel Laureate Meetings, Germany

Jan Rinnert
Heraeus Group, Germany

Moderator: Martina Gieg
Heraeus Group, Germany

Access for Nobel Laureates and pre-registered Young Scientists only
 Please see your personalized schedule for details.

Partner Breakfast Physics Will Shape the Biology of the Future

07:00
 Forum am See



hosted by the Human Frontier Science Program (HFSP)

Hartmut Michel
Max Planck Institute of Biophysics, Germany

Giorgio Tortarolo
École polytechnique fédérale de Lausanne EPFL, Switzerland

Moderator: Pavel Kabat
International Human Frontier Science Program Organization (HFSP), France

Access for Nobel Laureates and pre-registered Young Scientists only
 Please see your personalized schedule for details.

Lecture

09:00
 Inselhalle
 Main Hall

Experimental Studies of Black Holes: Status & Prospects

Reinhard Genzel
Max Planck Institute for Extraterrestrial Physics, Germany

Lecture

09:30
 Inselhalle
 Main Hall

Exoplanet Revolution

Didier Queloz
ETH Zurich, Switzerland
University of Cambridge, United Kingdom

10:00

Break**Agora Talk**

10:15
 Inselhalle
 Main Hall

Cosmology Today and Tomorrow

George F. Smoot
DIPC – Donostia International Physics Center, Spain

Moderator: Sibylle Anderl
DIE ZEIT, Germany

Agora Talk

10:15
 Inselhalle
 Conference Room
 1–3

My Way to NMR and to a Nobel Prize

Kurt Wüthrich
The Scripps Research Institute (TSRI), United States of America

Moderator: Rainer Blatt
University of Innsbruck, Austria

11:00

Break

Hosted by the Free State of Bavaria

BAVARIAN EVENING

Thursday, 4 July

19:00

Wear a traditional festive costume
from your home country!



Agora Talk**Taking Into Account Organised Complexity Could Initiate a New Era in Physics**

11:15

Inselhalle
Conference Room
1–3Brian D. Josephson
*University of Cambridge, United Kingdom*Moderator: Adam Smith
*Nobel Prize Outreach, Sweden***Agora Talk****The Quantum Reform of the Modern Metric System**

11:15

Inselhalle
Main HallWilliam D. Phillips
*National Institute of Standards and Technology (NIST), United States of America*Moderator: Rainer Blatt
University of Innsbruck, Austria

12:00

Break**Agora Talk****Adventures With Single Molecules and SARS-CoV-2**

12:15

Inselhalle
Main HallW. E. Moerner
*Stanford University, United States of America*Moderator: Peter Brzezinski
*Royal Swedish Academy of Sciences, Sweden***Agora Talk****The Science and Aesthetics of Soap Bubbles**

12:15

Inselhalle
Conference Room
1–3Dan Shechtman
*Technion – Israel Institute of Technology*Moderator: Adam Smith
Nobel Prize Outreach, Sweden

13:00

Lunch BreakInselhalle
Main Foyer and
Lounge

13:15

Laureate Lunches

Various Locations

Access for Nobel Laureates and pre-registered Young Scientists only
Please see your personalized schedule for details.**Open Exchange****Reinhard Genzel**

15:00

Hotel Bayer. Hof
Conference Room
Konstanz 3

Discussion with Young Scientists

Access for Nobel Laureates and Young Scientists only

Open Exchange**Theodor W. Hänsch**

15:00

Hotel Bayer. Hof
Conference Room
Reichenau

Discussion with Young Scientists

Access for Nobel Laureates and Young Scientists only

Open Exchange**Robert Huber**

15:00

Hotel Bayer. Hof
Conference Room
Konstanz 2

The Century of Vision in Molecular Biology and Medicine:

Discussion with Young Scientists

Access for Nobel Laureates and Young Scientists only

Open Exchange**Brian D. Josephson**

15:00

Inselhalle
Conference Room
6–7

Discussion with Young Scientists

Access for Nobel Laureates and Young Scientists only

Open Exchange**W.E. Moerner**

15:00

Forum am See

Discussion with Young Scientists

Access for Nobel Laureates and Young Scientists only

Open Exchange**William D. Phillips**

15:00

Inselhalle
Conference Room 3

Discussion with Young Scientists

Access for Nobel Laureates and Young Scientists only

Open Exchange**Didier Queloz**

15:00

Discussion with Young Scientists

Inselhalle

Access for Nobel Laureates and Young Scientists only

Conference Room 2

Open Exchange**George F. Smoot**

15:00

Discussion with Young Scientists

Hotel Bayer. Hof

Access for Nobel Laureates and Young Scientists only

Conference Room

Konstanz 1

Open Exchange**Kurt Wüthrich**

15:00

Discussion with Young Scientists

Inselhalle

Access for Nobel Laureates and Young Scientists only

Conference Room 1

Science Walks**Informal Exchange**

15:00

Meeting Point: main entrance of the Inselhalle

Access for Nobel Laureates and pre-registered Young Scientists only

Please see your personalized schedule for details.

16:30

Break**Workshop****How To Remove Obstacles for the International Movement of Early-Career Scientists**

17:00

Moderator: Leonhard Möckl

Inselhalle

Max Planck Institute for the Science of Light, Germany

Conference Room

L1–L2

Access for Nobel Laureates and pre-registered Young Scientists only

Please see your personalized schedule for details.

Workshop**How To Create Bias-Free Review Procedures for Fellowships and Research Grants**

17:00

Inselhalle

Moderator: Pernilla Wittung-Stafshede

Conference Room

Chalmers University of Technology, Sweden

L1–L2

Access for Nobel Laureates and pre-registered Young Scientists only

Please see your personalized schedule for details.

18:30

Break**Social Event****Bavarian Evening**

19:00–22:30

hosted by the Free State of Bavaria

Inselhalle

Welcome

Main Hall and Main

Countess Bettina Bernadotte, President of the Council

Foyer

Greetings on Behalf of the Free State of Bavaria*Eric Beißwenger, Bavarian State Minister for European Affairs, Germany***“O’zapft is!” – Bavarian Dinner***Traditional Tapping Ceremony**Opening of the Beer Barrel and Bavarian Dinner Buffet***Folk Dance & Bavarian Music***Trachtenverein »Koppchtaler« Altusried**ScheinEilig*



Concert on Mainau Island
WEST-EASTERN
DIVAN ENSEMBLE

led by Michael Barenboim

Credit: Peter Adamik

Social Event

07:45

MS Sonnenkönigin

**Baden-Württemberg Boat Trip to Mainau Island***hosted by the State of Baden-Württemberg*

Note for all participants departing on Friday and not returning to their hotel: no luggage may be taken on the boat. Two luggage lorries will be available at Lindau Harbour; please place your luggage accordingly.

Lorry 1 to “Mainau Island”: for those not returning to Lindau. Pick-up is at main entrance to Mainau Island until 16:30.

Lorry 2 to “Lindau”: for those leaving directly after their return to Lindau. Pick-up is at Lindau Harbour immediately after arrival.

07:15

Lindau Harbour

Check-in

for Young Scientists

07:45

Lindau Harbour

Departure

08:00

Bad Schachen

Check-in

for Nobel Laureates

08:15

Bad Schachen

Departure

10:30

Mainau Island

Arrival

11:00

Mainau Island

Palace Meadow

Welcome to Mainau Island

Countess Bettina Bernadotte

*President of the Council, Lindau Nobel Laureate Meetings
Managing Director, Mainau GmbH, Germany*

Count Björn Bernadotte

*Executive Member of the Board, Lennart-Bernadotte-Foundation,
Managing Director, Mainau GmbH, Germany*

Panel Discussion

11:10

Mainau Island

Palace Meadow

How to Preserve Trust in Science in the Age of AI?

Jaryd Ricardo Christie

University of Western Ontario, Canada

David J. Gross

University of California, Santa Barbara, United States of America

Brian P. Schmidt

The Australian National University, Australia

Donna Strickland

University of Waterloo, Canada

Young Scientist tba.

Moderator: Sibylle Anderl

DIE ZEIT, Germany

Recent advances in artificial intelligence (AI) find rapidly increasing applications for research in science, and not the least in physics and its related areas. Ranging from controlling experimental arrangements for advanced measurements to analysis of big and complex data sets to the prediction of molecular structure and interactions, AI techniques quickly emerge as powerful tools in the physical sciences. Going a step further, we cannot rule out the possibility that AI models may soon even be used to identify what may be new laws of physics.

While holding great promise, these advances also raise serious questions. Can established principles of transparency, replicability, falsifiability, and accountability be applied to the use of AI, or do they need to be fundamentally revised? Can we trust AI-generated conclusions from big data sets? What degree of human control, involvement and rational understanding is required for something to be called “physics” or “science”: can something be physics if only a machine “understands” it?

Do we need new tools to prevent incorrect science to be used as a basis for decision making in government, business, and society? Can physics continue to work as a self-contained discipline, or is broader interaction with other disciplines such as ethics and behavioural sciences a necessity?

Closing Ceremony Conclusion & Farewell

12:30
Mainau Island
Palace Meadow

Countess Bettina Bernadotte
President of the Council

Concert

13:00
Mainau Island
Palace Meadow

West-Eastern Divan Ensemble

Ever since the famous Mainau Declaration of 1955, the island of Mainau has been associated with international understanding and coexistence. We continue this tradition with a concert given by the West-Eastern Divan Ensemble, led by Michael Barenboim.

Michael Barenboim | Violin
Katia Abdel-Kader | Viola
Sary Khalife | Cello
Omar Farjoun Bishara | Double Bass
Jussef Eisa | Clarinet
Zeynep Ayaydinli | Bassoon
Bar Zemach | Horn

Ludwig van Beethoven – Septet in E-flat major, Op. 20

Adagio – Allegro con brio
Adagio cantabile
Tempo di Menuetto
Tema. Andante con Variazioni
Scherzo. Allegro molto e vivace
Andante con moto alla Marcia – Presto

13:30
Mainau Island
Arboretum

Science Picnic on the Arboretum Lawn

*hosted by the Ministry of Science, Research, and Arts,
State of Baden-Württemberg*

**Boarding**

16:00
Mainau Harbour

16:30
Mainau Harbour


Departure
Baden-Württemberg Boat Trip to Lindau & Alumni Party
hosted by the State of Baden-Württemberg

Arrival

18:30
Bad Schachen

Arrival

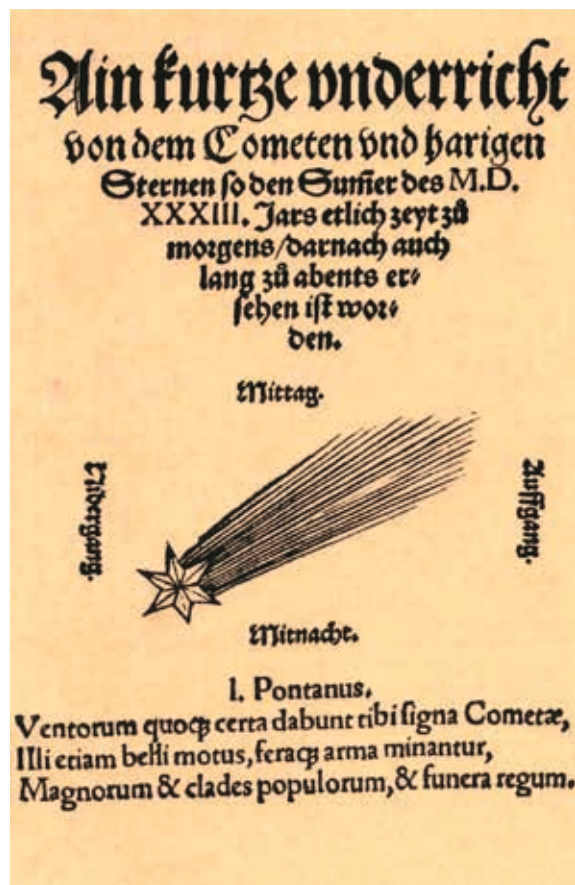
19:00
Lindau Harbour



Now or Never CONNECT

The boat rides on the closing day are the perfect opportunity to connect to your peers. They are all there.

Also, join the Lindau Alumni Network to stay in touch and keep the Lindau Spirit.



WRATHFUL RODS, MESSENGERS OF TERROR, SKY OBJECTS

Comets and Their Meaning in Astronomy and Astrology

From Aristotle to Newton

HISTORIC CITY LIBRARY

DAILY OPENING HOURS: 14:00–18:00

Enjoy free access to this special exhibition with your Young Scientist name badge

Books that changed the world: A jewel of the town of Lindau, the Historic City Library (Old Town Hall, access via Reichsplatz) houses an outstanding collection of books from the early years of modern science: The first editions of Copernicus' *De Revolutionibus*, Newton's *Principia Mathematica*, Kepler's *Astronomia Nova* and many further treasures.

The current exhibition is dedicated to comets and their important role in the Copernican Revolution. Curator and Lindau Alumnus Burkhard Kümmerer and Director Markus Breitwieser will be happy to guide you through this treasure trove. Time slots for guided tours are posted at the library entrance.

Scientific Chairs of the 73rd Lindau Nobel Laureate Meeting

Rainer Blatt

Lindau Alumnus 1982

Member of the Austrian Academy of Sciences

Institute for Experimental Physics, University of Innsbruck, Austria

Institute for Quantum Optics and Quantum Information Innsbruck

Austrian Academy of Sciences

Member of the Council for the Lindau Nobel Laureate Meetings

Heiner Linke

Professor of Nanophysics, Lund University, Sweden

Member of The Royal Swedish Academy of Sciences, Nobel Committee for Chemistry (Chair), Sweden

Vice President of the Council for the Lindau Nobel Laureate Meetings

The Lindau Meetings: Our Ambition and History

For over seventy years, the Lindau Nobel Laureate Meetings have served as unique forum for exchange between Nobel Laureates and Young Scientists. Every summer, more than 600 of the world's most talented Young Scientists and more than 30 Nobel Laureates are invited to spend a week in Lindau on the German side of Lake Constance, a week full of mutual inspiration and scientific encounters. Since the first Meeting in 1951, more than 35,000 Young Scientists have participated in the Lindau Meetings – for many of them, it has been an experience that has changed their careers and lives, making them part of a unique international network of scientific excellence. Even after years and decades, they are still connected with each other and with the Lindau Meetings through the Lindau Alumni Network.

The original idea of the Meetings goes back to two physicians based in Lindau, Franz Karl Hein and Gustav Wilhelm Parade, as well as to Count Lennart Bernadotte af Wisborg, a member of the Swedish royal family who quickly became the spiritus rector of the Lindau Meetings. From the start, they saw the Meetings as a means to reconcile the peoples of post-war Europe, in particular, the younger generation. Lindau quickly developed into an international forum for the exchange of knowledge between nations, cultures, traditions, and disciplines.

A Council and a Foundation: Lindau's Organizational Set-Up

The Lindau Nobel Laureate Meetings are conducted annually during one week at the end of June. Every third year, they are supplemented by the Lindau Meeting on Economic Sciences. The Meetings are officially organized by the Council for the Lindau Nobel Laureate Meetings and the Foundation Lindau Nobel Laureate Meetings, with the Executive Secretariat being responsible for planning and realization. The Council oversees the Meetings' strategic development and programming. It is presided over by Countess Bettina Bernadotte af Wisborg while its members comprise internationally renowned scientists from the fields of medicine, physics, chemistry, and economics. In its work, the Council benefits from the commitment of the secretaries of the various bodies awarding the Nobel Prizes, who are also represented in the Council.

At the initiative of 50 Laureates, the Council and the Bernadotte Family established the Foundation Lindau Nobel Laureate Meetings in 2000. Succeeding to Wolfgang Schürer, Jürgen Kluge has been serving as the chairman of its board since 2016. In addition to ensuring sustainable funding, its key priorities comprise initiatives to further the advance-

ment of the Lindau Meetings and to expand our international network of Academic Partners.

Since its beginning, the Foundation has been enjoying enormous success, not least among Nobel Laureates. More than 375 Laureates are members of its Founders' Assembly. Through their membership and their engagement with the Lindau Spirit, they demonstrate their support for the mission of the Lindau Nobel Laureate Meetings. Similarly, personalities from the worlds of science, politics, and industry have been inducted into the Foundation's Honorary Senate in recognition of their special commitment to scientific excellence and the promotion of Young Scientists.

Making Lindau Possible: Our Funders and Supporters

The Lindau Nobel Laureate Meetings are made possible thanks to the support received from supranational, national and regional bodies, companies, associations, and private patrons. Furthermore, various international companies, foundations, associations and private maecenates assure the financial basis for the Lindau Meetings through donations to the Foundation's endowment. Interest earned on the endowment plus additional annual contributions by benefactors help to cover the budget of the Lindau Meetings. Donations in kind also play an important role in organizing the Meetings at the present standard. Not least, Lindau's success story is owed to the commitment shown by the Laureates, members of the Council and of the board of the Foundation during the preparation, realisation, and evaluation of the Lindau Meetings. A full list of supporters is enclosed in this programme.

Our Global Network of Academic Partners

In accordance with our ambition to make the Lindau Nobel Laureate Meetings accessible to the best Young Scientists from all over the world, we run an international, multi-stage selection process every year. None of this would be possible without our global network of Academic Partner institutions that broadcast the annual call, receive the applications, make a pre-selection, and nominate the most talented candidates from their country to apply for participation in a Lindau Meeting. Today, we closely collaborate with more than 200 internationally renowned science and research institutions.

Our Programme Formats

Based on the principle of dialogue, our Scientific Programme offers various formats facilitating the exchange of knowledge, ideas, and experience between and among Nobel Laureates and Young Scientists.

Lectures

Lectures are given by Nobel Laureates only. Some may like to explain the research that won them the Nobel Prize, but Laureates are free to choose a topic of their liking.

Agora Talks

This is a particularly flexible and interactive format – be it one Nobel Laureate giving a presentation or several Laureates interacting in the discussion of a topic. In all cases, a qualified moderator leads Q&A from the audience, a lively discussion, or an in-depth interview.

Open Exchanges

In addition to Lectures and Agora Talks, many Nobel Laureates offer one of these sessions, which are particularly research-oriented and thus strictly limited to Laureates and Young Scientists. Switching between sessions should be avoided.

Panel Discussions

Several panellists jointly discuss one topic, followed by Q&A from the audience.

Heidelberg Lecture

Inspired by the Lindau Nobel Laureate Meetings, our long-standing supporter and Honorary Senator, the late Klaus Tschira, founded the Heidelberg Laureate Forum (HLF) in 2013. The HLF is dedicated to laureates and young scientists from the fields of mathematics and computer science. As token of our outstanding partnership, Lindau hosts a Heidelberg Lecture every year while, in turn, a Lindau Lecture is part of the HLF's annual programme.

Next Gen Science Sessions & Scientific Exchange Among Young Scientists

Our sessions dedicated to Next Gen Science and to Scientific Exchange Among Young Scientists set the stage for a selection of participating Young Scientists to present their own research. Interested Young Scientists may apply for a slot before the Meeting. Those selected prepare a presentation of about ten minutes, to be followed by a brief Q&A with the audience.

Workshops

Workshops invite Young Scientists to actively work on a topic, for example in small working groups helping to turn the Lindau Guidelines into an actionable work programme.

Science Walks

During a Science Walk, a Nobel Laureate and up to ten Young Scientists spend their time exploring picturesque spots in Lindau and its surroundings – an almost unsurpassed occasion for personal and informal discussions.

Laureate Lunches

Laureate Lunches offer one Nobel Laureate and up to ten Young Scientists the opportunity to talk science (and other things) informally at one of Lindau's atmospheric restaurants.

Partner Events & Partner Breakfasts

Partners of the Lindau Meetings are invited to organize side events outside the core programme, e.g. in the mornings (Partner Breakfasts) or evenings (Partner Dinners or other Partner Events).

Morning Workouts

If you need a break from thinking and talking, why not join one of our Morning Workouts?

The Lindau Nobel Laureate Pier

There is hardly any other place in the world where so many Nobel Laureates have met regularly besides Lindau. The Nobel Laureate Pier is the best evidence of this. The central station of Lindau's Science Trail, the Pier was opened in 2019 thanks to the support of the Beisheim Stiftung and the City of Lindau.

Located on the "Kleiner See", the so-called "Small Lake", it offers a view of the mainland and is conveniently situated behind the "Inselhalle", the main venue of Lindau Nobel Laureate Meetings. All Nobel Laureates who have ever been to Lindau are listed here on their own bar in the guardrail – currently almost 400! On each bar, you can read the name, the year of the Nobel Prize, and the year of the first visit to Lindau. The bars of Laureates visiting Lindau for the first time are marked with a yellow ribbon. Laureates returning to Lindau have an orange ribbon.

If you want to locate a particular Nobel Laureate on the pier, you can use the web-based search function shown at the entrance of the pier.

The search function also links to further information in the Lindau Mediatheque.



THE LINDAU GUIDELINES

01 Adopt an Ethical Code

02 Cooperate Globally on Global Problems

03 Share Knowledge

04 Publish Results Open Access

05 Publish Data to Repositories

06 Work Transparently & Truthfully

07 Change Reward Systems

08 Support All Talent

09 Communicate to Society

10 Engage in Education

The Lindau Guidelines aim for an open, cooperative science community where data and knowledge are freely shared. Based on an initiative by Nobel Laureate Elizabeth Blackburn, the ambitious goals have been discussed, amended, and refined. The successful implementation of the Lindau Guidelines relies on the commitment of the global community of scientists and researchers.

Since their release in June 2020, the Lindau Guidelines have been endorsed by more than 40 Nobel Laureates, supported by several scientific institutions, and signed by a growing number of researchers.

Find out how you can support the Lindau Guidelines on lindauguidelines.org.

SOCIAL MEDIA

#LINO24
@lindaunobel

ABSTRACTS

Session abstracts are available at
programme.lindau-nobel.org

ALUMNI NETWORK

Meet your peers at
alumni.lindau-nobel.org

REWATCH

Most of the sessions will be available
afterwards in the Lindau Mediatheque:
[mediatheque.lindau-nobel.org/
meetings/2024/recordings](http://mediatheque.lindau-nobel.org/meetings/2024/recordings)

IN-DEPTH COVERAGE

Check our blog for additional
in-depth coverage:
blog.lindau-nobel.org

MENTORING HUB

Interested in becoming
a mentor or a mentee?
mentoringhub.lindau-nobel.org

The Lindau Nobel Laureate Meetings would like to thank all Maecenates, Patrons, and Donors for their contributions to the endowment of the Foundation.

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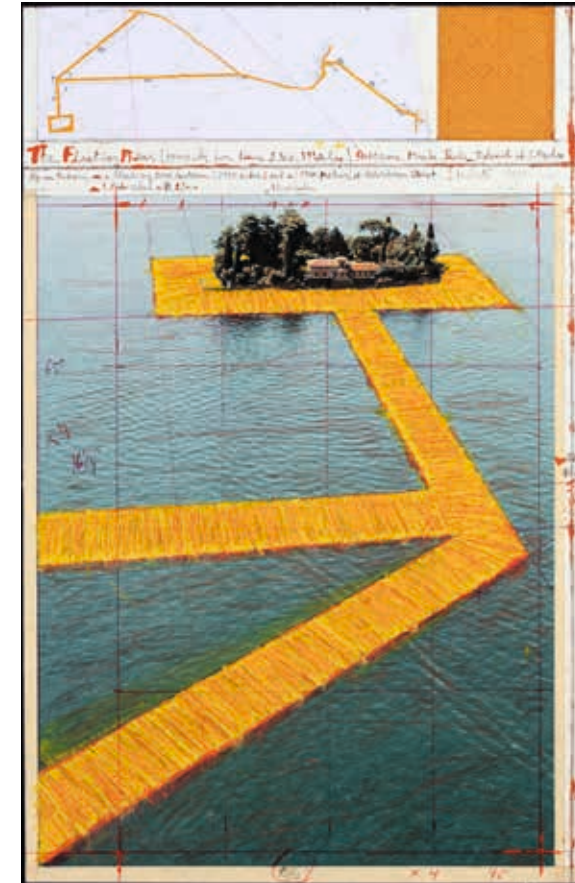
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and the Friends of the Foundation as well as anonymous Endowment Contributors



CHRISTO AND JEANNE-CLAUDE

A Lifelong Journey

LINDAU ART MUSEUM

DAILY OPENING HOURS: 10:00–18:00

Enjoy free access to this special exhibition with your Young Scientist name badge

The exhibition “Christo and Jeanne-Claude – A Lifelong Journey” at the Lindau Art Museum presents the duo’s monumental projects, featuring drawings, collages, objects, and photographs that document their extraordinary artistic journey, focussing on the emotionally powerful Wrapped Reichstag. This comprehensive exhibition offers unique insights into their visionary works and includes exclusive perspectives from their longtime photographer Wolfgang Volz.

Christo – The Floating Piers (Project for Lake Iseo, Italy), 2017

Screen print with a collage from a photograph of Wolfgang Volz, Fabric, map and masking tape; 56 x 35.5 cm; signed and numbered 75/75

Photo: Wolfgang Volz © Christo and Jeanne-Claude Foundation; VG Bild-Kunst Bonn

The Lindau Nobel Laureate Meetings would like to thank all Supporters of the 73rd Lindau Nobel Laureate Meeting.

SIGNIFICANT MEETING BENEFACTORS

Bayerisches Staatsministerium für Wissenschaft und Kunst
 Bundesministerium für Bildung und Forschung (BMBF), Germany
 Dieter Schwarz Stiftung gGmbH
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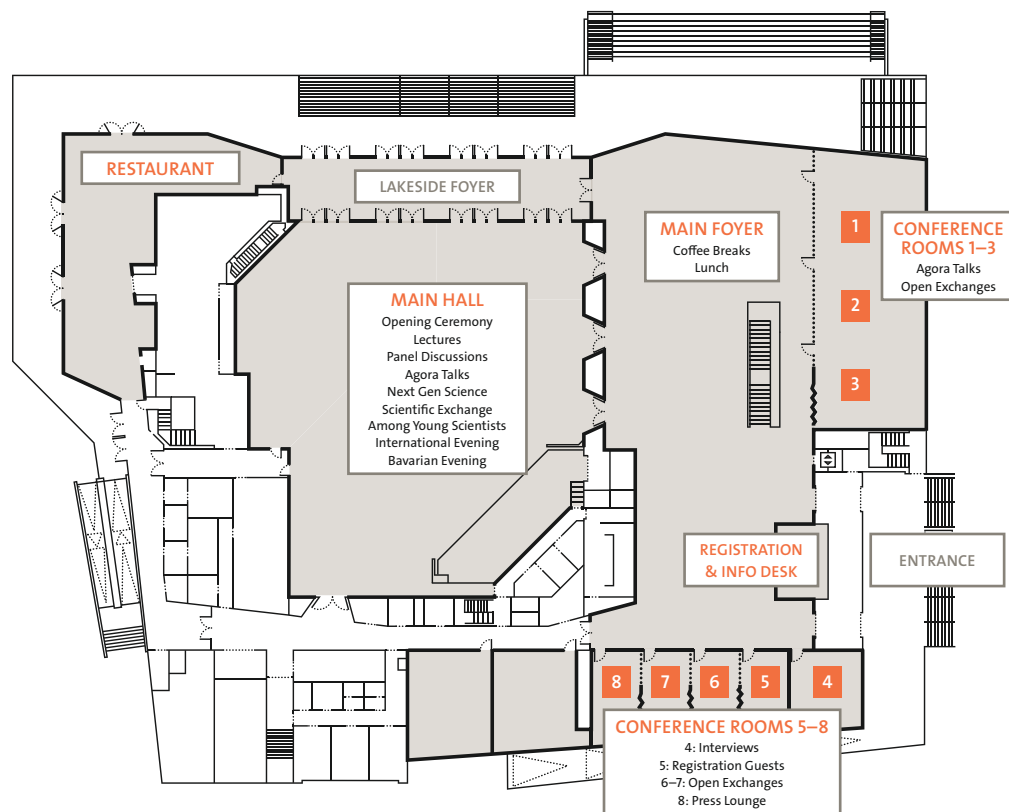
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CONTRIBUTORS

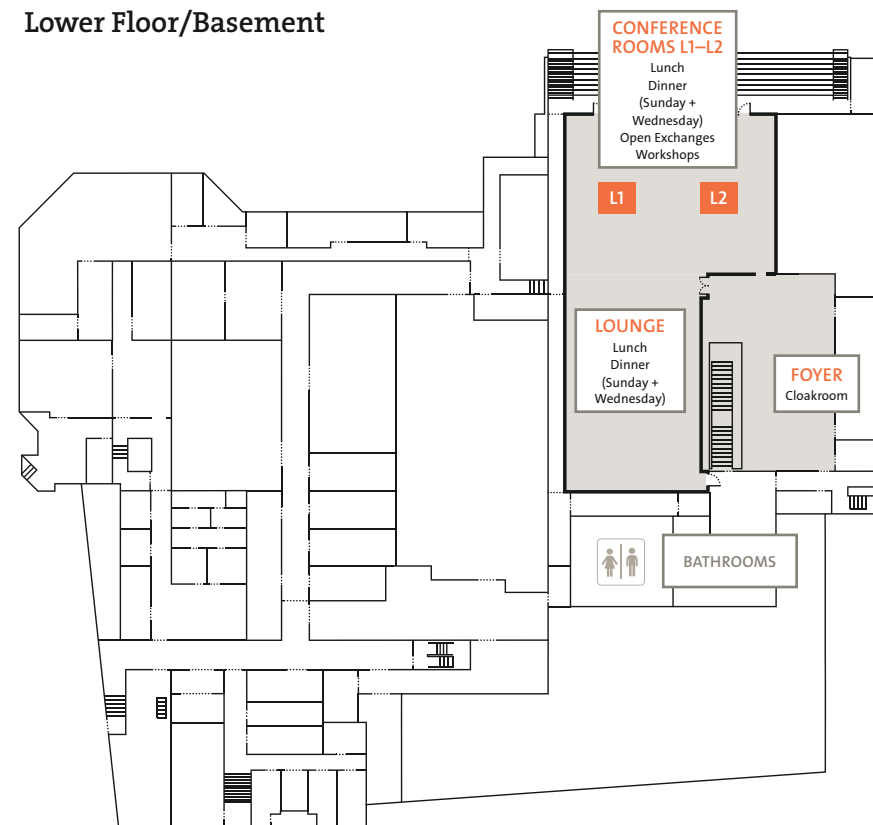
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and anonymous Benefactors as well as Academic Partners around the world covering participation fees and travel costs for Young Scientists

Ground Floor

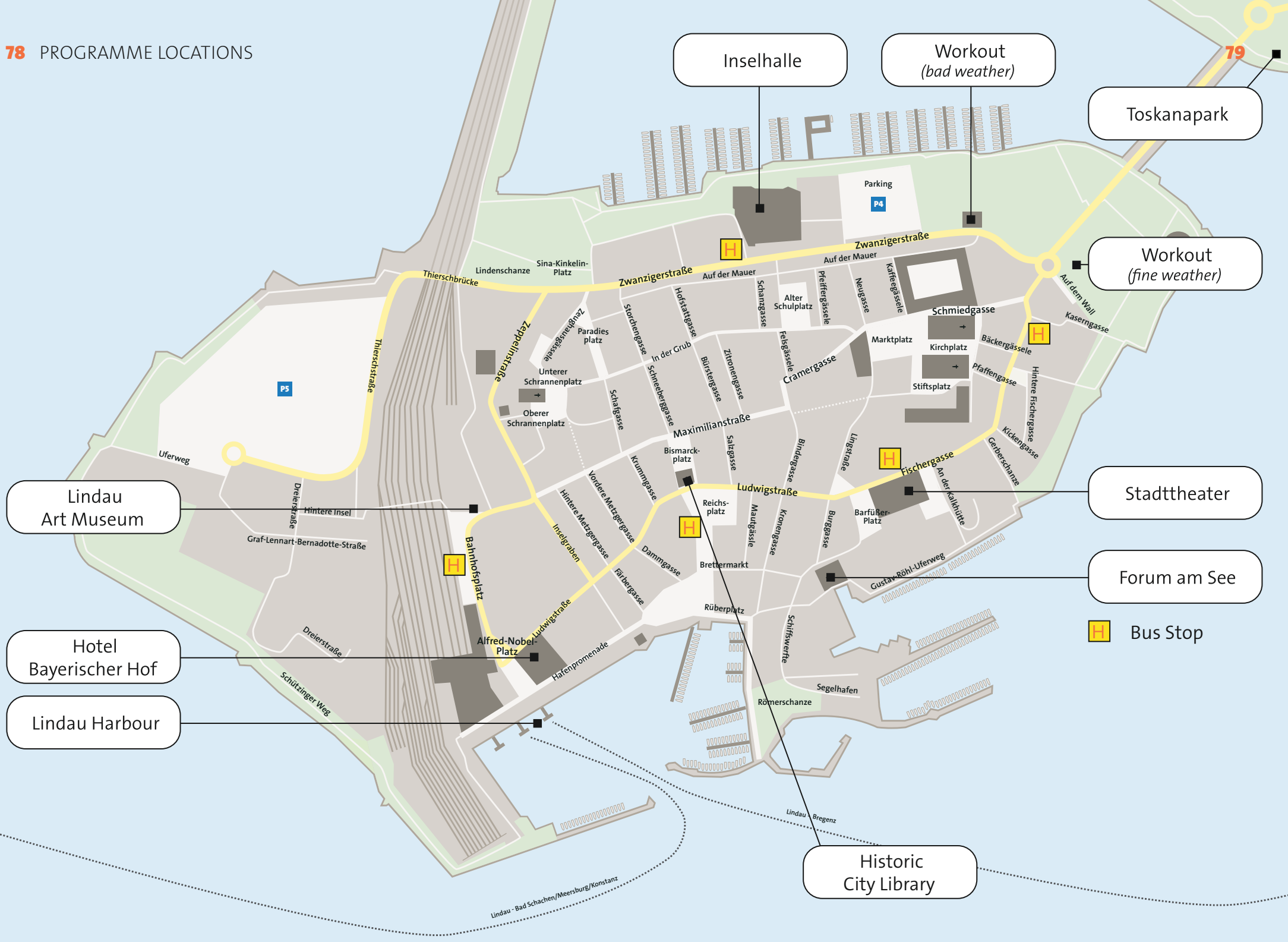


Lower Floor/Basement



What	Where
Agora Talks	Conference Rooms 1-3 and Main Hall
Bathrooms	Basement
Coffee Breaks	Main Foyer
Lectures	Main Hall
Lunch	Main Foyer and Basement Laureate Lunches: various locations
Next Gen Science	Main Hall Stadttheater
Scientific Exchange	Main Hall Stadttheater
Among Young Scientists	

What	Where
Open Exchanges	Conference Rooms 1-3 and 6-7, Conference Rooms L1-L2 Hotel Bayerischer Hof Forum am See
Panel Discussions	Main Hall
Partner Breakfasts	Hotel Bayerischer Hof Forum am See
Press Lounge	Conference Room 8
Science Walks	Meeting Point: Main Entrance of the Inselhalle
Social Events	Main Hall various locations
Workshops	Conference Rooms L1-L2



Inselhalle

Workout
(bad weather)

Toskanapark

Workout
(fine weather)


Lindau
Art Museum

Stadttheater

Hotel
Bayerischer Hof

Forum am See

Lindau Harbour

 Bus Stop

Historic
City Library



Valentin
In der Grub 28a

ONU VINO
Zwanzigerstraße 12

Wissingers
In der Grub 28

Cantinetta
Chelles-Allee 1

Heimat
Marktplatz 1

Hotel Engel
Schafgasse 4

Hotel Bayerischer Hof
Seepromenade

Eilguthalle
Schützingerweg 2

Hotel Lindauer Hof
Dammgasse 2

Hotel Reutemann-Seegarten
Ludwigstraße 23

Bus Stop

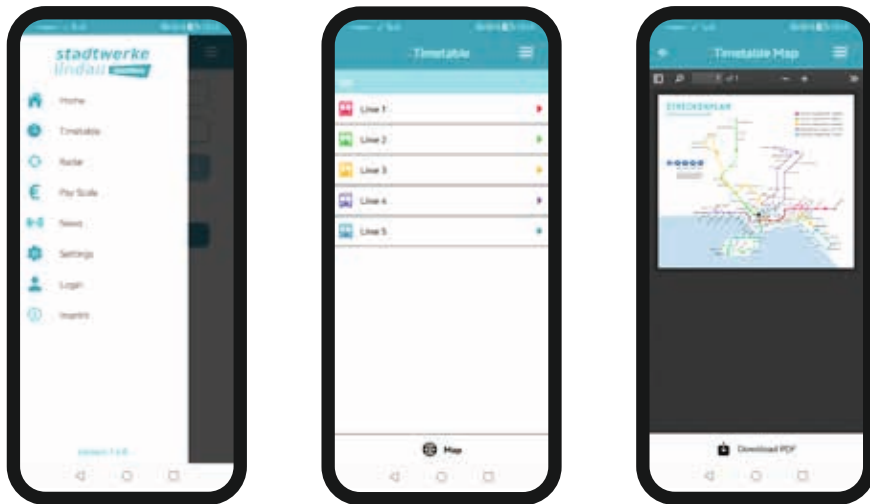


Stadtbus Lindau

For all updated information about bus operating hours, departure times and the Lindau bus stops, please download the App “Stadtbus Lindau” from the App Store/Play Store.

Please note that on Monday, 1 July, there will be changes regarding the bus stops, especially “Leiblachstraße (Linie 5)” will no longer be served and fully replaced by the bus stop “Grenzsiedlung Zech (Linie 5)”.

All changes will be visible in the App → Timetable → Route Map



Bus: Special Operating Hours During the Lindau Meeting

From Monday, 1 July, to Thursday, 4 July, the last buses leave from Inselhalle / the central connection point (ZUP) as follows, serving all stops along their routes:

- Monday night, 1 July at 00:03 at Inselhalle / 00:10 at ZUP
- Tuesday night, 2 July at 23:03 at Inselhalle / 23:05 at Toskanapark / 23:10 at ZUP
- Thursday night, 4 July at 23:03 at Inselhalle / 23:10 at ZUP

All other bus lines run as indicated in the timetable.



RESPONSIBILITY

The Lindau Nobel Laureate Meetings and its boards, team, and staff are working hard to leave a positive footprint.

Since 2020, we are a climate-positive event.

Encouraged by the Young Scientists' initiative IDEA, we are also continuously improving aspects of inclusion and diversity.

Read more about the details at lindau-nobel.org/responsibility.

Desk Opening Hours

Date	Young Scientists	Guests	Press
Saturday, 29 June	13:00–18:00	/	/
Sunday, 30 June	09:30–20:00	09:30–19:00	10:00–18:00
Monday, 1 July	08:30–18:30	08:30–17:00	08:30–18:30
Tuesday, 2 July	08:30–18:30	08:30–17:00	08:30–18:30
Wednesday, 3 July	08:30–20:00	08:30–20:00	08:30–18:30
Thursday, 4 July	08:30–18:30	08:30–15:00	08:30–17:00

On-site Contacts

The office can be reached during the meeting as follows:

Young Scientist Desk	Tel +49 8382 8899 621
Guest Desk	Tel + 49 8382 8899 635
Press Desk	Tel +49 8382 8899 638
E-mail (general)	info@lindau-nobel.org
E-mail (ombudsperson)	codeofconduct@lindau-nobel.org
Emergency	112
Taxi	Tel. +49 8382 5050 and +49 8382 3550 and +49 8382 899 51 48

Lanyard Colour Code

Turquoise	Nobel Laureates
Striped Turquoise	Partners, family members, accompanying persons of Nobel Laureates
Grey	Young Scientists
Blue	Visiting Scientists
Red	Guests
Yellow	Journalists
Lime Green	Host Families
Purple	Lindau citizens
Orange	Contractors
Brown	Shuttle service & external service providers
Green	Council & Foundation
Striped Green	Partners, accompanying persons of Members of the Council & Foundation
Black	Staff of the Executive Secretariat

Dietary Needs

Should you have any dietary needs, please make sure to check with one of our desks or the catering service.

Medical Assistance

- In case of urgent, life-threatening medical issues, call 112 and/or contact any member of our staff.
- In case of urgent, but not life-threatening medical issues, please contact the paramedic team on site or see one of our desks.
- In case of non-urgent medical issues, please check with one of our desks.

Code of Conduct

The meetings have implemented a code of conduct, detailing appropriate and inappropriate behaviour. Please make sure to adhere to it. See code.lindau-nobel.org for details.

If you feel that the Meetings' code of conduct has been violated in a substantial way, you may contact our front desk staff or write to the Meeting's ombudsperson at codeofconduct@lindau-nobel.org.

Future Meetings**74th Lindau Nobel Laureate Meeting (Chemistry)**

29 June – 4 July 2025

8th Lindau Meeting on Economic Sciences

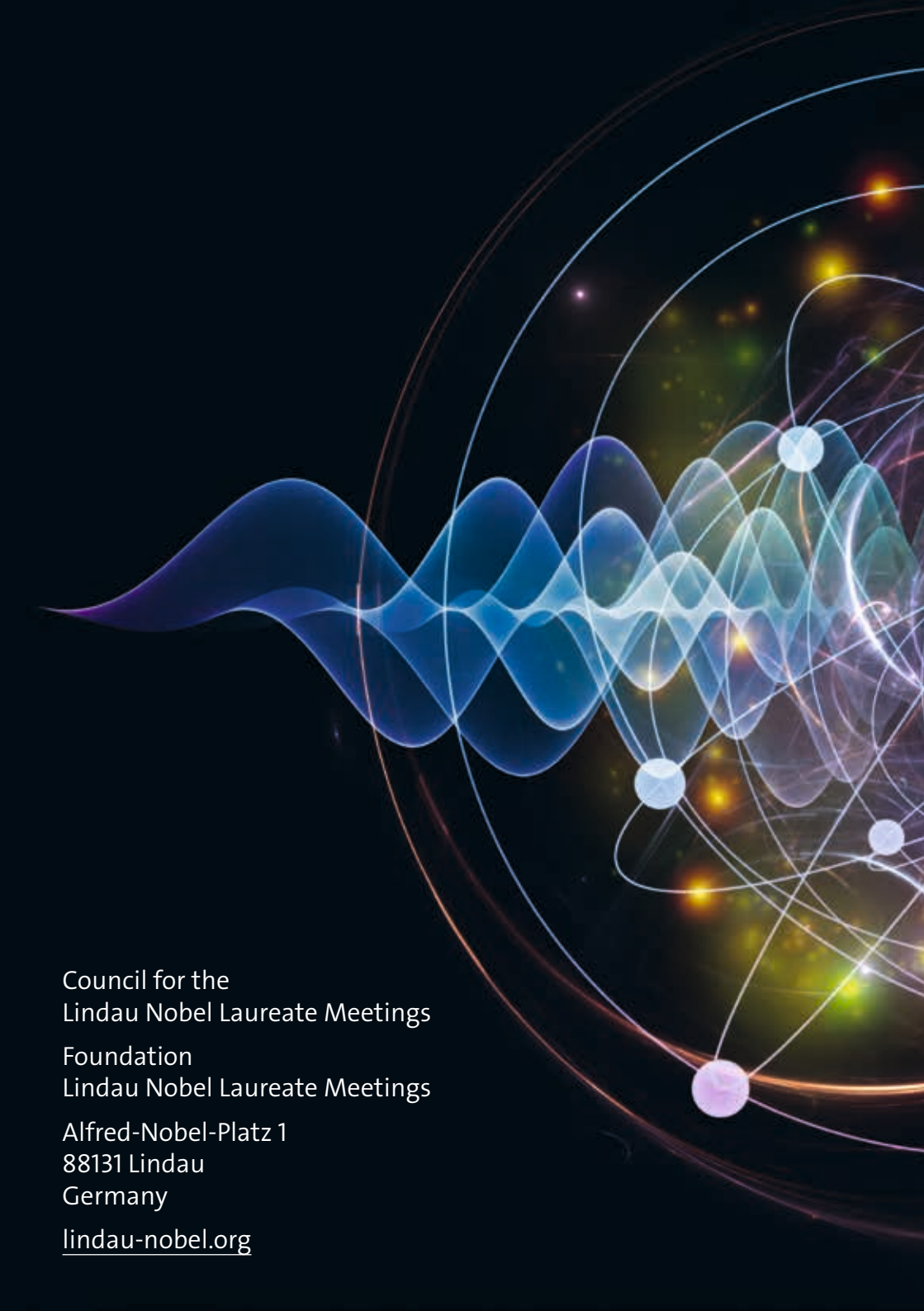
26–30 August 2025

75th Lindau Nobel Laureate Meeting (Interdisciplinary)

28 June – 3 July 2026

76th Lindau Nobel Laureate Meeting (Physiology/Medicine)

27 June – 2 July 2027

The background features a complex abstract graphic. On the left, a series of overlapping, translucent blue waves flow from left to right. On the right, a network of glowing nodes (in shades of blue, purple, and yellow) is connected by thin, white lines, resembling a molecular structure or a data network. The entire scene is set against a dark, almost black background, with faint, concentric circular lines in shades of blue and purple, suggesting a globe or a celestial map.

Council for the
Lindau Nobel Laureate Meetings
Foundation
Lindau Nobel Laureate Meetings
Alfred-Nobel-Platz 1
88131 Lindau
Germany
lindau-nobel.org