

YSSP

Young Scientists Summer Program

Calendar 2019



International Institute for
Applied Systems Analysis

IIASA www.iiasa.ac.at



Welcome

Welcome from the IIASA Director General and CEO

Starting today, you will be part of one of the most cherished and acclaimed programs of the International Institute for Applied Systems Analysis (IIASA).

As Director General of IIASA, I warmly welcome you to the institute for the three-month-long Young Scientists Summer Program (YSSP), known worldwide as the training ground for future applied systems scientists and analysts. You have been selected from among many applicants for this unique opportunity to work on a YSSP research project and to enjoy the company of 50 other like-minded young scientists drawn from around the world.

Policymakers worldwide need problem-focused, solution-oriented, interdisciplinary research to help them resolve their complex decision-making problems: in other words, they need systems analysts.

The YSSP started in 1977, five years after IIASA was founded, when Roger Levien, the then IIASA Director (1975–1981), opened the first program for young scientists to start building a new cadre of applied systems analysts for the future. The YSSP Program has taken place every year since then, offering hands-on practical experience with applied systems analysis in a multinational and multicultural setting.

You are preceded by more than 1,971 YSSPers from 87 countries. Many have achieved high positions in science, business, and government. Some have returned to IIASA as research scholars; others have continued to work as close collaborators in IIASA's large research network. All report great memories of their time at Schloss Laxenburg. If the testimony of previous YSSPers holds, you will experience the YSSP to be a truly transformative period in your personal development and growth.

While your research project is a major part of your stay, the YSSP also offers opportunities for widening your horizons by participating in discussions with IIASA scientists, attending seminars given by invited prominent speakers, or contributing to various ad hoc science groups, as well as joining in social activities and sports events.

Following is the program for YSSP 2019. I wish you all a great summer and please ensure that you absorb as much knowledge as you can during your time at IIASA!



Dr. Albert van Jaarsveld
June 2019



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YSSP team

We, the YSSP team — JoAnne, Tanja, Aleks, Brian, Warren, Ying, and Serge—join the Director General and all IIASA staff in extending a warm welcome to you. We look forward to interacting with you and to making your YSSP 2019 experience scientifically productive and socially enjoyable.



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Official events




Welcome reception – Arrival at IIASA

-  Monday, 3 June, 9:00–09:30
 -  Wodak Conference Area
 -  YSSP team, YSSP program representatives, and others
- Refreshments will be served in the Wodak Conference Area




Official opening – Part 1

-  Monday, 3 June, 9:30–10:30
 -  Wodak Room
 -  Welcome to IIASA – Albert van Jaarsveld
- Introducing YSSP team – YSSP Dean JoAnne Bayer
Introductory remarks – Former YSSP participants

Integration into IIASA programs and introduction to supervisors

-  Monday, 3 June, 10:30–12:00
 -  Program representatives will pick you up from the Wodak Room and escort you to your research program
 -  Introduction to YSSP supervisors, program staff, program administrator, and your workspace.
- Lunch with your research program at the Schloss Restaurant.

Learn about the YSSP Calendar 2019 – Q&A session

-  Monday, 3 June, 13:30–14:15
 -  Wodak Room
 -  What is YSSP – YSSP Scientific Coordinator Brian Fath
- YSSP Calendar – Your Summer Guide
- Find out about the great variety of scientific and social activities available and ask questions. Meet a representative of the IIASA Social and Culture Committee (SOCU) and the IIASA Sustainability Champions group

Official events

Official opening – Part 2



Monday, 3 June, 14:15–15:30



Wodak Room



General information – Human Resources representative

Introduction to the IIASA Management Information System (MIS) – Rafal Cabala & Michael Foith

Introduction to IIASA Computing Environment – Joe Undercoffer, head of Information & Communication Technologies

Dancing with the Future

“Dancing with the Future”, a co-production between the IIASA Science and Art Project and Harvard University, pushes the boundaries of art and science, fusing dance, evolutionary dynamics, and an interactive game. Based on the 2014 Nature paper ‘Cooperating with the Future’ by 1989 YSSPer Martin Nowak, five dancers and scientists explore the mechanisms of cooperation and investigate a question that is at the heart of all sustainable development, yet remains widely elusive because it entails a moral component that cannot easily be assessed: are humans able to cooperate with future generations? You will find out what planet you would leave behind for the people who come after us.



Monday, 3 June, 15:45–16:45



General Purpose Building

“Heuriger” dinner



Monday, 3 June

17:30 Bus pick up for dinner at “Heuriger” Kirchenheuriger Hofstädter, Guntramsdorf (wine tavern), 21:30 Bus transportation to Vienna and the dorms

Human Resources briefing



Tuesday, 4 June

Individual groupings to be announced



General Purpose Building

Official events

Tick shots



First tick shot: Tuesday, 4 June, 13:30–16:15

Second tick shot: Tuesday, 25 June, 08:30–12:00

Individual groupings (see handout in your welcome folder)



Dr. Schuster's office, General Purpose Building, 2nd floor

Detailed introduction to library services and use



Wednesday, 5 June, 10:30–11:15



Gvishiani room

Information session and visit to the IIASA Library – Michaela Rossini, Library Manager

YSSP introductory research presentations

IIASA program directors briefly present the programs' research areas and YSSPers present the research they will be conducting during the summer.

This gives you an opportunity to pass on brief details of your research to your fellow YSSPers, such as its title, objective, and focus, what motivates your research, and why you find it challenging.

Note: Your abstracts and bibliographies will be available at the venue.



Friday, 7 June, 09:00–16:45



Gvishiani Room

Agenda:

09:00 Opening (JoAnne Bayer/Brian Fath)

09:10 Air Quality and Greenhouse Gases (AIR)

09:40 Advanced Systems Analysis (ASA)

10:15 Evolution and Ecology (EEP)

10:25 Break

10:55 Energy (ENE)

11:25 Ecosystems Services and Management (ESM)

12:00 Lunch

13:30 Ecosystems Services and Management (ESM) – continued

14:00 World Population (POP)

14:30 Risk and Resilience (RISK)

15:05 Break

15:25 Transitions to New Technologies (TNT)

15:45 Water (WAT)

16:25 Communications (COM)



"My PhD research required me to link extremely disparate disciplines in a manner that was also relevant to the global issues being faced by society on a daily basis. This would not have been possible for me without the experience I gained at IIASA during the YSSP."

Talha Manzoor, 2013

Official events

Meet the IIASA Council

Meet your funders and representatives of your National Member Organization.
Please register here: www.iiasa.ac.at/NN-Registration



Monday, 17 June

17:15 Transfer to Vienna

18:30 Joint public lecture by Professor Nebojsa Nakicenovic in collaboration with the Austrian Academy of Sciences followed by reception



Dr. Ignaz Seipel-Platz 2, A-1010 Vienna

Final colloquium

At this event, you will present your research findings to your colleagues and other IIASA scholars



Thursday, 22 August, 09:00–17:30

Friday, 23 August, 9:00–16:00



Wodak and Gvishiani Rooms

Farewell banquet and dance



Wednesday, 29 August, 17:00–24:00



Panorama Restaurant

Transportation from the venue to Mödling and Vienna will be provided



"During my time at the YSSP I met many ambitious young scientists and experienced senior research fellows coming from different countries and working in various fields. It really broadened my perspective and inspired my further research. The seminars and presentations held at IIASA really shared different points of view and gave me new perspectives on my research.

It was an extraordinary and unforgettable time."

Siyuan Yang, 2015

Scientific program

Seminars, workshops, and more

This section gives an overview of the scientific events that are planned for the summer. The program includes seminars, workshops, and other activities, which we hope will enrich your summer by:

- acquainting you with IIASA scientists and their research,
- providing feedback on your research,
- stimulating interdisciplinary inquiry,
- providing information on specialized research tools, and
- adding to your YSSP experience.

In addition, IIASA has arranged lectures by internal and external speakers that you are welcome to attend. We will keep you updated on summer events on the online YSSP calendar (see www.iiasa.ac.at/yssp/calendar).

While these activities are not mandatory, we encourage you to participate actively and use the opportunity to broaden your perspective and knowledge. If you would like to hear more about IIASA research or organize a discussion group or other activity, the YSSP team will be happy to assist.

Wishing you a stimulating and productive summer,

The YSSP Team

Scientific program

Google Earth Engine workshop

Google Earth Engine combines a multi-petabyte catalog of satellite imagery and geospatial datasets with planetary-scale analysis capabilities and makes it available to scientists, researchers, and developers to detect changes and map trends, and to quantify differences on the Earth's surface. This workshop is intended for everyone who regularly works with geospatial data.

Ideal participants will meet one or more of the following requirements: (a) currently working on geo/mapping-related projects, (b) intermediate-to-advanced technical experience in one or more of the following areas: GIS and/or Remote Sensing, Google Earth, Google Maps, or Earth Engine.

Please register your interest prior to the workshop at <http://tiny.cc/2ygb6y>.



Wednesday, 12 June, 10:00–12:30



Gvishiani Room



Olha Danylo, Research Scholar, ESM

Introduction to GIS (Geographic Information Systems) workshop

The session will begin with a lecture covering the basics of GIS—namely, vector and raster data, spatial analysis, ArcGIS, and Quantum GIS (an open-source GIS package). This will be followed by a hands-on session where participants can work through a series of exercises to learn ArcGIS or Quantum GIS, depending on their interests. You might need to install additional software on your laptop before the workshop. This workshop is aimed at users with no or limited GIS experience.

Please register your interest prior to the workshop at <http://tiny.cc/2ygb6y>.



t.b.a.



Gvishiani Room



Olha Danylo, Research Scholar, ESM

An online version of the calendar
can be found here:

www.iiasa.ac.at/yssp/calendar

Calendar

June 2019						
					Saturday, 1 June	Sunday, 2 June
Monday, 3 June Opening, art performance, dinner & intro to programs	Tuesday, 4 June HR briefing & tick shots	Wednesday, 5 June Introduction to Library	Thursday, 6 June	Friday, 7 June YSSP research presentations	Saturday, 8 June	Sunday, 9 June
Monday, 10 June	Tuesday, 11 June Historical tour of Laxenburg castle	Wednesday, 12 June Google Earth Engine workshop	Thursday, 13 June	Friday, 14 June Weekend trip to Styria	Saturday, 15 June Weekend trip to Styria	Sunday, 16 June Weekend trip to Styria
Monday, 17 June Meet the IIASA Council	Tuesday, 18 June	Wednesday, 19 June IIASA Science Café	Thursday, 20 June	Friday, 21 June	Saturday, 22 June	Sunday, 23 June
Monday, 24 June	Tuesday, 25 June Tick shots	Wednesday, 26 June Systems Analysis reading/discussion sessions	Thursday, 27 June	Friday, 28 June	Saturday, 29 June	Sunday, 30 June

July 2019

Monday, 1 July	Tuesday, 2 July	Wednesday, 3 July	Thursday, 4 July	Friday, 5 July	Saturday, 6 July	Sunday, 7 July
Data management & statistics in R workshop	Data management & statistics in R workshop					
Monday, 8 July	Tuesday, 9 July	Wednesday, 10 July	Thursday, 11 July	Friday, 12 July	Saturday, 13 July	Sunday, 14 July
		Systems Analysis reading/discussion sessions				
Monday, 15 July	Tuesday, 16 July	Wednesday, 17 July	Thursday, 18 July	Friday, 19 July	Saturday, 20 July	Sunday, 21 July
	Panel discussion on Science for Policy	Manuscript preparation seminar				
Monday, 22 July	Tuesday, 23 July	Wednesday, 24 July	Thursday, 25 July	Friday, 26 July	Saturday, 27 July	Sunday, 28 July

August 2019


Monday, 29 July	Tuesday, 30 July	Wednesday, 31 July	Thursday, 1 August	Friday, 2 August	Saturday, 3 August	Sunday, 4 August
		Alternative Economic and Monetary Systems				
Monday, 5 August	Tuesday, 6 August	Wednesday, 7 August	Thursday, 8 August	Friday, 9 August	Saturday, 10 August	Sunday, 11 August
	Stories for a Sustainable Future	Joint talk by YSSP 2018 award winners	Director's lunch			
Monday, 12 August	Tuesday, 13 August	Wednesday, 14 August	Thursday, 15 August	Friday, 16 August	Saturday, 17 August	Sunday, 18 August
Monday, 19 August	Tuesday, 20 August	Wednesday, 21 August	Thursday, 22 August	Friday, 23 August	Saturday, 24 August	Sunday, 25 August
			Final colloquium	Final colloquium		
Monday, 26 August	Tuesday, 27 August	Wednesday, 28 August	Thursday, 29 August	Friday, 30 August	Saturday, 31 August	
			Farewell banquet & dance			

Scientific program

IIASA Science Café

Interactive poster displays with IIASA scientists pertaining to ongoing research in each program.

 Wednesday, 19 June, 13:00–14:30


 Wodak and Gvishiani Rooms

Systems Analysis reading/discussion sessions

IIASA is a leading scientific institution in the development and understanding of systems thinking and systems ideas. Please join these sessions to discuss systems thinking concepts from a historical perspective up to current advances and challenges.


Recommended reading based on your interests:


 Wednesday, 26 June, 16:00–17:30

 Gvishiani Room

Foell WK. 1976. Ecological and Environmental Research at the International Institute for Applied Systems Analysis. *Ecological Modelling* 2, 287–294.

Lesourne J. 1976. Systems Analysis and International Organizations. *Ecological Modelling* 2, 295–302.

 Wednesday, 10 July, 16:00–17:30

 Wodak Room

Linstone HA (1993). Breaking Out of the Systems Quandary. In: *A Systems-Based Approach to Policymaking*, De Greene KB (eds). Springer, Boston, MA



"My stay in the YSSP at IIASA in the summer of 2013 was definitely crucial to my academic career, not only because of an important publication, but also because it helped me finish my PhD thesis and get a European doctorate at Rey Juan Carlos University the following year. The international experience, along with the interaction with IIASA researchers, is really priceless."

Emilio L. Cano, 2013

Scientific program

Data management and statistics in R workshop

R is an open-source platform for statistical computing freely available for several operating systems. This workshop will teach you how to get started in R using RStudio to facilitate learning. Although an elementary background in statistics will be assumed, we will start by refreshing basic statistical concepts before introducing you to R, its basic data management and analysis capabilities, as well as the graphical exploration of data. You will learn how to extract descriptive statistics and how (and when) it is appropriate to use inferential statistics, especially linear models. Depending on time and participant needs, the use of general and generalized linear mixed models will also be explained.

Please register your interest prior to the workshop by emailing Juan Carlos Laso Bayas (lasobaya@iiasa.ac.at). Install R first and then RStudio in your laptop and then bring your laptop to the session.



Monday, 1 July, 10:00–12:00



Tuesday, 2 July, 10:00–12:00




Gvishiani Room





Juan Carlos Laso Bayas, Research Scholar, ESM

Scientific program

Panel discussion on Science for Policy


 Tuesday, 16 July, 11:00–12:00


 Wodak Room


 Jan Marco Müller, Acting Chief Operations Officer, Directorate
JoAnne Linnerooth-Bayer, Acting Program Director, RISK
Junko Mochizuki, Research Scholar, RISK

Manuscript preparation seminar

Your scientific career will largely be assessed by the quality and quantity of your publications in peer-reviewed journals. It is thus necessary to be able to communicate your results effectively to your peers. This seminar will provide an editor's perspective on a journal's three Rs: Readers, Writers, and Reviewers, as well as tips for writing clearly organized, publishable, and highly cited papers.

 Wednesday, 17 July, 15:30–17:00

 Wodak Room

 Brian Fath, Senior Research Scholar, ASA

Scientific program

Alternative Economic and Monetary Systems (AEMS)

Joint lecture and activity with participants at the University of Natural Resources and Life Sciences, Vienna and Technical University summer universities - <http://summer-university.net/study-abroad/aems-vienna/>



Wednesday, 31 July – Please reserve this day to learn and interact with students in the Alternative Economic and Monetary Systems course. The topics will focus on biophysical aspects of money and alternative accounting systems that are more consistent with sustainable living.

Additional details t.b.a.

Stories for a Sustainable Future

This session explores how the power of storytelling can help convey key scientific findings to the public and inspire action. A recent IIASA publication which has been transformed into a theatre play will be presented.



Tuesday, 6 August



Wodak Room





Gloria Benedikt, Project Leader, Science and Art


Scientific program

Joint talk by YSSP 2018 Peccei and Mikhalevich award winners

Research presentations from YSSP 2018 award winners.

 Wednesday, 7 August, 16:00–17:30


 Wodak Room


 Modeling Child Health through Space and Time –
Matt Cooper, YSSP 2018 Participant, ESM/RISK

Role of export industries in China's ozone pollution –
Jiamin Ou, YSSP 2018 Participant, AIR

Director's lunch

Chance to provide feedback and exchange ideas with IIASA Director General and CEO Dr. Albert van Jaarsveld in small cross-program groups.

 Thursday, 8 August – Wednesday, 14 August, 11:45–13:15

 Club Room, Schloss Restaurant

Social activities

Vienna walk

Guided tour through Vienna's city center



t.b.a.



t.b.a.

Historical tour of the castle



Tuesday, 11 June, 16:00–17:30



Meeting point: Schloss Entrance Area



Brian Fath, YSSP Scientific Coordinator

Weekend trip to Styria – Grundlsee



Friday, 14–16 June



Meeting point: 12:50, Schloss Entrance Area

Throughout the summer

Tennis, table tennis, volleyball, yoga, and soccer (incl. tournaments) Swimming (public swimming pool within walking distance)

In addition, you may like to organize your own social activities (e.g., exploring Vienna's social scene, various trips around Austria, international days, etc.). The YSSP Team and SOCU (Social and Cultural Committee) can help you with these events by providing local information and tips.

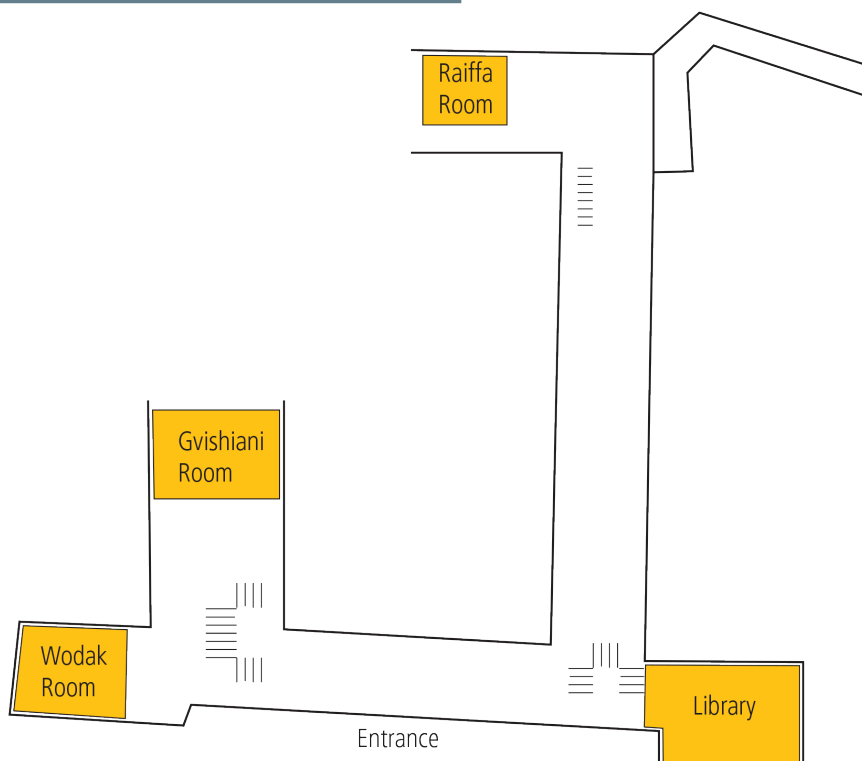
Simmering, 217 bus schedule to IIASA

Leaves from Simmering (Bussteig A) at 7:47
Arrives in Laxenburg (Eduard Hartmann Platz) at 8:28

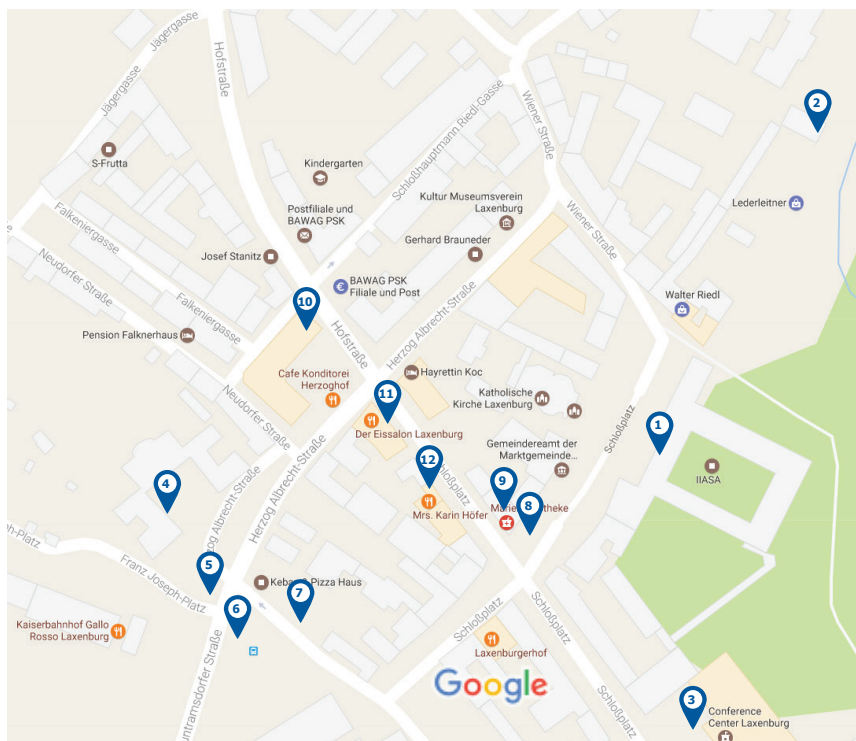
Leaves from Laxenburg (Eduard Hartmann Platz) at 16:55 and 18:18
Arrives in Simmering (Bussteig A) at 17:37 and 19:00

** also possible to come by subway, train, and other busses*

Schloss Laxenburg 1st floor



Center of Laxenburg



- | | |
|---|-----------------------------------|
| 1 IIASA, Schloss Laxenburg | 7 Bus stop from/to Mödling |
| 2 IIASA, General Purpose (GP) Building | 8 Pharmacy |
| 3 Conference Center Laxenburg | 9 Doctor |
| 4 IIASA Schloss Restaurant | 10 Adeg Supermarket |
| 5 Bus stop from Vienna | 11 Eissalon Laxenburg |
| 6 Bus stop to Vienna | 12 Anna's Cafe |

Stay in touch



At the end of your YSSP stay, all of you will be IIASA alumni/ae (from the Latin, “nourished”).

You will be leaving, nourished and hopefully enriched, with certificates as proof. Most likely you will take with you positive memories of a productive and enjoyable stay at IIASA, as well as new ideas, contacts, and relationships that inevitably develop during the summer.

The IIASA Alumni Association hopes to help you maintain a continuing relationship with the institute and colleagues, by keeping the information that you give us about your activities up-to-date and publishing what you would like others to know about your whereabouts, your work, and your interests.

Through the Alumni Association, IIASA also wishes to keep you informed about new programs that you might find interesting; to ask your help in making YSSP and IIASA better known; to receive feedback and ideas about the institute, its programs, and possible future areas of research.

When the summer is almost over, you can join the IIASA Alumni Association.

The Alumni Association wishes you a most successful three months, and looks forward to helping you remain an important part of the institute’s extended family when you leave.

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