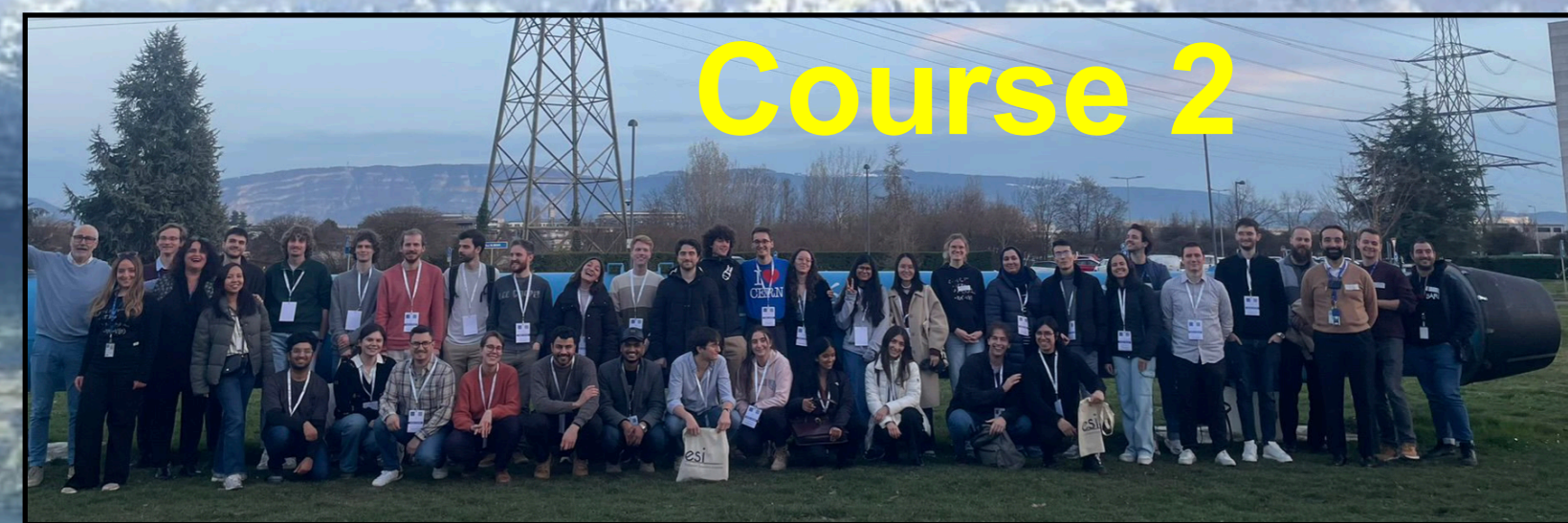




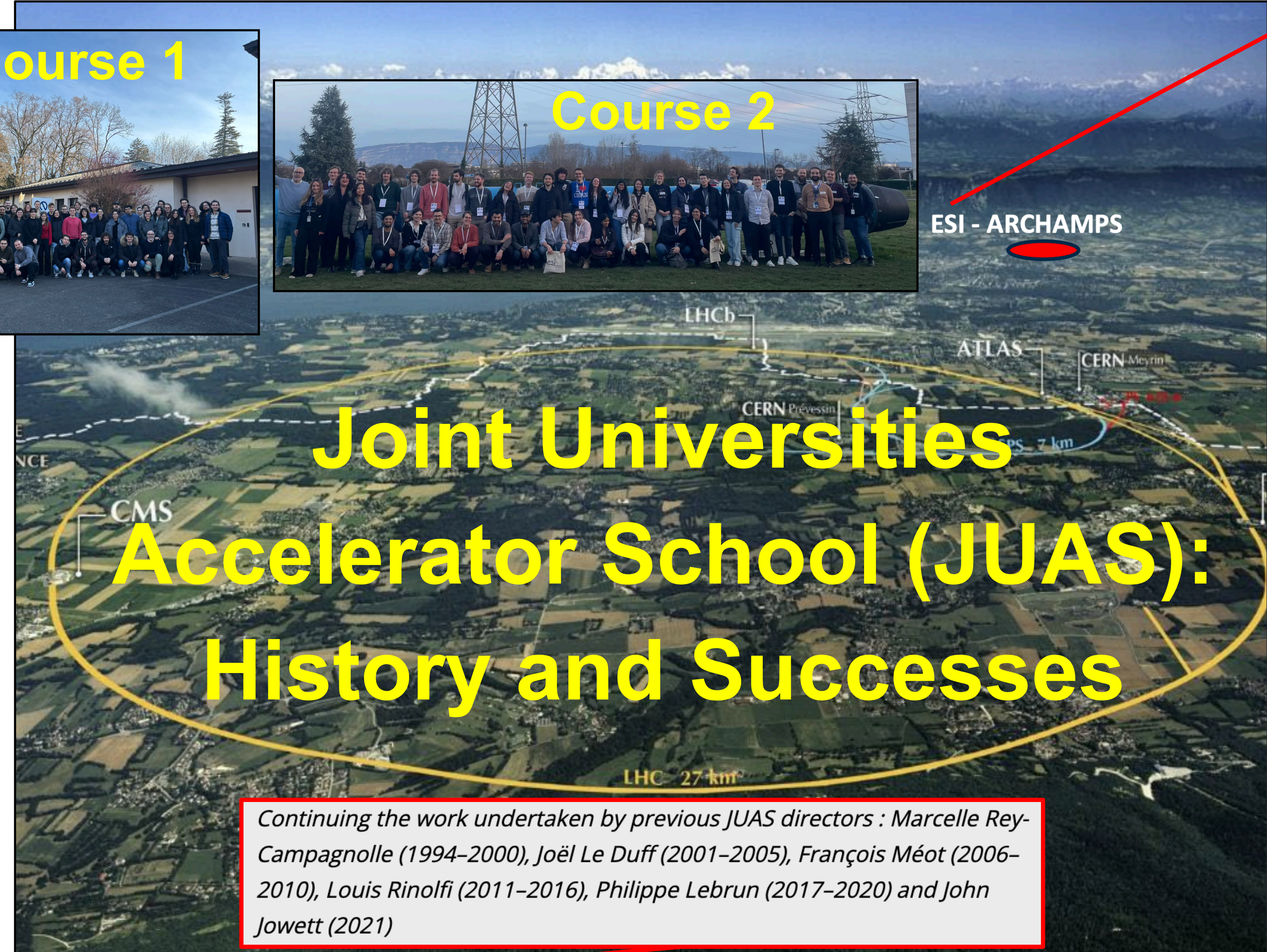
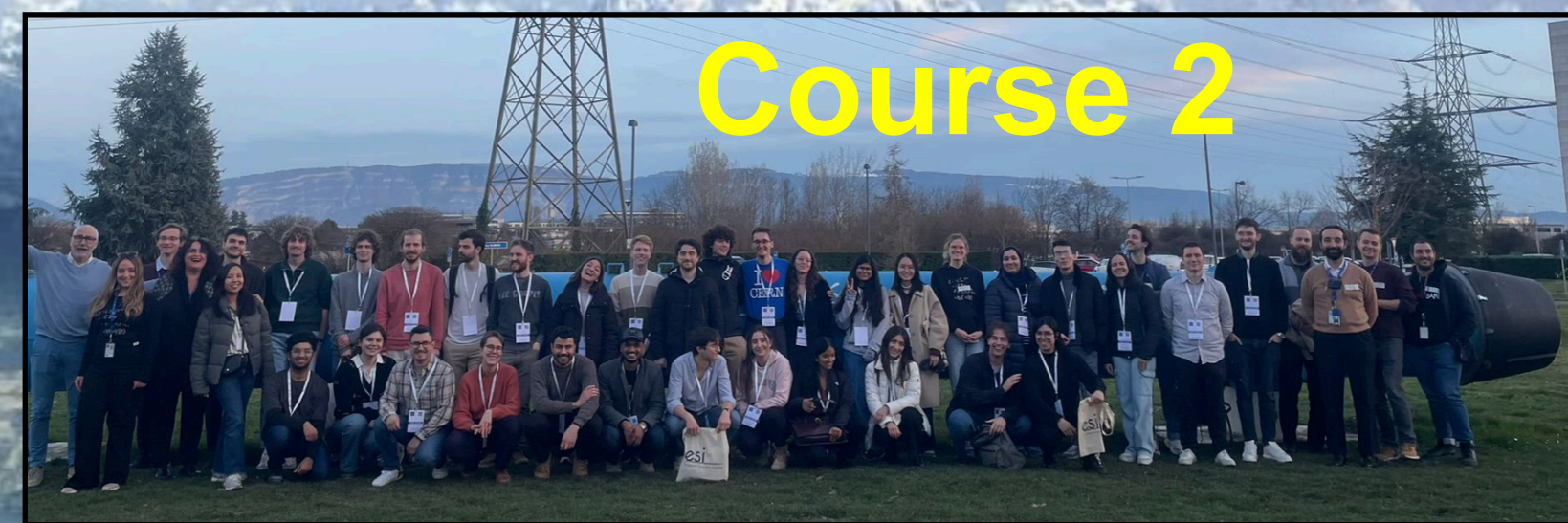
Joint Universities Accelerator School (JUAS): History and Successes



Joint Universities Accelerator School (JUAS): History and Successes

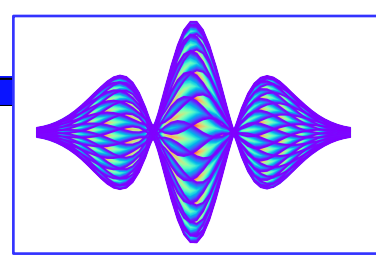


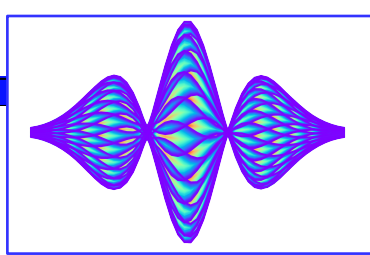
Joint Universities Accelerator School (JUAS): History and Successes

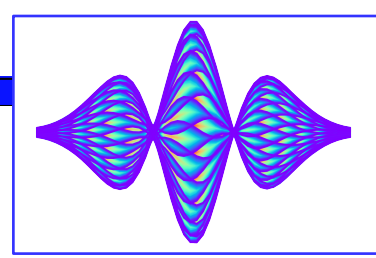


Joint Universities Accelerator School (JUAS): History and Successes

Continuing the work undertaken by previous JUAS directors : Marcelle Rey-Campagnolle (1994-2000), Joël Le Duff (2001-2005), François Méot (2006-2010), Louis Rinolfi (2011-2016), Philippe Lebrun (2017-2020) and John Jowett (2021)

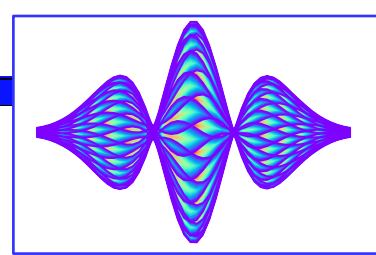






Accelerator schools



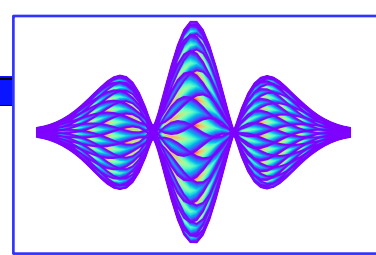


Accelerator schools



Currently led
by John Byrd

- ◆ **USPAS** (U.S. PARTICLE ACCELERATOR SCHOOL, since 1981)



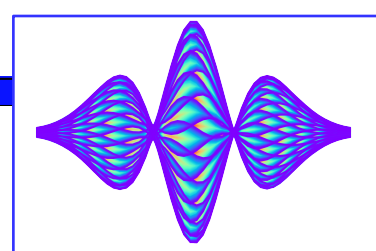
Accelerator schools



- ◆ **USPAS** (U.S. PARTICLE ACCELERATOR SCHOOL, since 1981)
- ◆ **CAS** (CERN ACCELERATOR SCHOOL, since 1983)

Currently led
by John Byrd

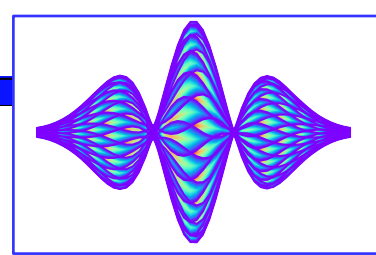
Currently led
by Frank Tecker



Accelerator schools



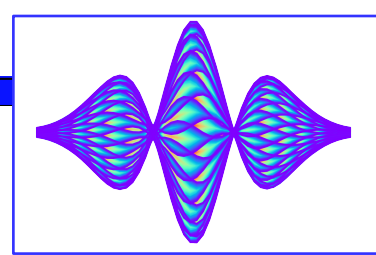
- ◆ **USPAS** (U.S. PARTICLE ACCELERATOR SCHOOL, since 1981) Currently led by John Byrd
- ◆ **CAS** (CERN ACCELERATOR SCHOOL, since 1983) Currently led by Frank Tecker
- ◆ **JAS** (JOINT INTERNATIONAL ACCELERATOR SCHOOL, since 1985)



Accelerator schools



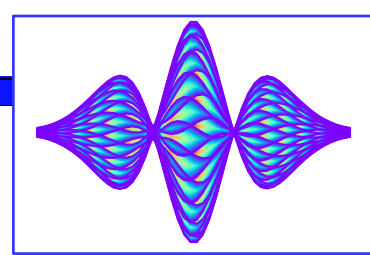
- ◆ **USPAS** (U.S. PARTICLE ACCELERATOR SCHOOL, since 1981) Currently led by John Byrd
- ◆ **CAS** (CERN ACCELERATOR SCHOOL, since 1983) Currently led by Frank Tecker
- ◆ **JAS** (JOINT INTERNATIONAL ACCELERATOR SCHOOL, since 1985)
- ◆ **JUAS** (JOINT UNIVERSITIES ACCELERATOR SCHOOL, since 1994)



Accelerator schools



- ◆ **USPAS** (U.S. PARTICLE ACCELERATOR SCHOOL, since 1981) Currently led by John Byrd
- ◆ **CAS** (CERN ACCELERATOR SCHOOL, since 1983) Currently led by Frank Tecker
- ◆ **JAS** (JOINT INTERNATIONAL ACCELERATOR SCHOOL, since 1985)
- ◆ **JUAS** (JOINT UNIVERSITIES ACCELERATOR SCHOOL, since 1994)
- ◆ **ISLC** (INTERNATIONAL ACCELERATOR SCHOOL for LINEAR COLLIDERS, 2006-2016)



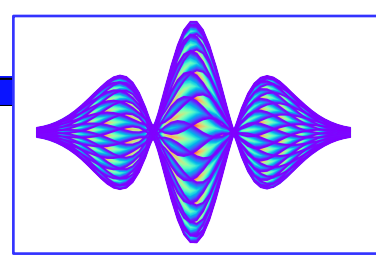
Accelerator schools



Currently led
by John Byrd

- ◆ **USPAS** (U.S. PARTICLE ACCELERATOR SCHOOL, since 1981)
- ◆ **CAS** (CERN ACCELERATOR SCHOOL, since 1983)
- ◆ **JAS** (JOINT INTERNATIONAL ACCELERATOR SCHOOL, since 1985)
- ◆ **JUAS** (JOINT UNIVERSITIES ACCELERATOR SCHOOL, since 1994)
- ◆ **ISLC** (INTERNATIONAL ACCELERATOR SCHOOL for LINEAR COLLIDERS, 2006-2016)
- ◆ **NPAS** (NORDIC PARTICLE ACCELERATOR SCHOOL, 2015-2017)

Currently led
by Frank Tecker

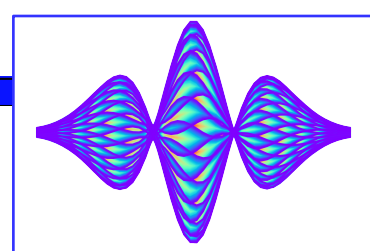


Accelerator schools



Currently led
by John Byrd

- ◆ **USPAS** (U.S. PARTICLE ACCELERATOR SCHOOL, since 1981)
- ◆ **CAS** (CERN ACCELERATOR SCHOOL, since 1983) Currently led by Frank Tecker
- ◆ **JAS** (JOINT INTERNATIONAL ACCELERATOR SCHOOL, since 1985)
- ◆ **JUAS** (JOINT UNIVERSITIES ACCELERATOR SCHOOL, since 1994)
- ◆ **ISLC** (INTERNATIONAL ACCELERATOR SCHOOL for LINEAR COLLIDERS, 2006-2016)
- ◆ **NPAS** (NORDIC PARTICLE ACCELERATOR SCHOOL, 2015-2017)
- ◆ **ISBA, OCPA, KAS, KoPAS, MePAS, ...**



Accelerator schools



Currently led by John Byrd

◆ **USPAS** (U.S. PARTICLE ACCELERATOR SCHOOL, since 1981)

◆ **CAS** (CERN ACCELERATOR SCHOOL, since 1983)

Currently led by Frank Tecker

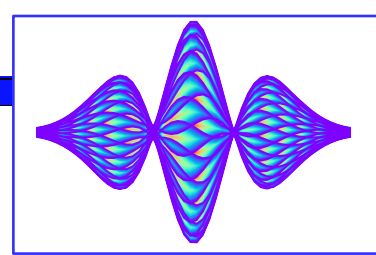
◆ **JAS** (JOINT INTERNATIONAL ACCELERATOR SCHOOL, since 1985)

◆ **JUAS** (JOINT UNIVERSITIES ACCELERATOR SCHOOL, since 1994)

◆ **ISLC** (INTERNATIONAL ACCELERATOR SCHOOL for LINEAR COLLIDERS, 2006-2016)

◆ **NPAS** (NORDIC PARTICLE ACCELERATOR SCHOOL, 2015-2017)

◆ **ISBA, OCPA, KAS, KoPAS, MePAS, ...**



Accelerator schools



Currently led
by John Byrd

◆ **USPAS** (U.S. PARTICLE ACCELERATOR SCHOOL, since 1981)

◆ **CAS** (CERN ACCELERATOR SCHOOL, since 1983)

Currently led
by Frank Tecker

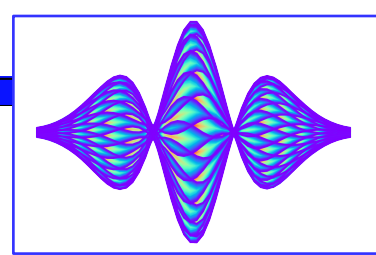
◆ **JAS** (JOINT INTERNATIONAL ACCELERATOR SCHOOL, since 1985)

◆ **JUAS** (JOINT UNIVERSITIES ACCELERATOR SCHOOL, since 1994)

◆ **ISLC** (INTERNATIONAL ACCELERATOR SCHOOL for LINEAR COLLIDERS, 2006-2016)

◆ **NPAS** (NORDIC PARTICLE ACCELERATOR SCHOOL, 2015-2017)

◆ **ISBA, OCPA, KAS, KoPAS, MePAS, ...**



Accelerator schools



Currently led by John Byrd

◆ **USPAS** (U.S. PARTICLE ACCELERATOR SCHOOL, since 1981)

◆ **CAS** (CERN ACCELERATOR SCHOOL, since 1983)

Currently led by Frank Tecker

◆ **JAS** (JOINT INTERNATIONAL ACCELERATOR SCHOOL, since 1985)

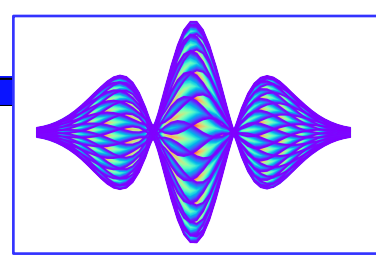
◆ **JUAS** (JOINT UNIVERSITIES ACCELERATOR SCHOOL, since 1994)

◆ **ISLC** (INTERNATIONAL ACCELERATOR SCHOOL for LINEAR COLLIDERS, 2006-2016)

◆ **NPAS** (NORDIC PARTICLE ACCELERATOR SCHOOL, 2015-2017)

◆ **ISBA, OCPA, KAS, KoPAS, MePAS, ...**

+
Some courses in several European universities or accelerator centers (see https://indico.cern.ch/event/759130/contributions/3148638/attachments/1753166/2841383/ECFA_PlenaryMeeting_15-11-18_CERN_EM.pdf)



The Joint Universities Accelerator School (JUAS) started in 1994 as “an experiment”

The Joint Universities Accelerator School (JUAS) started in 1994 as “an experiment”

Celebration of the 30th anniversary of JUAS and presentation of the JUAS book

Wednesday 27 Nov 2024, 09:15 → 18:30 Europe/Zurich

81/R-003A - Science Gateway Auditorium A (CERN)

Elias Métral (CERN)

Description The Joint Universities Accelerator School (JUAS) has provided postgraduate-level education in the science and technology of particle accelerators to more than 1400 students since 1994. Most have earned credits towards Masters or Doctoral degrees at our Partner Universities in Europe, while students at other universities around the world and early-career professionals have sought to enhance their applicable knowledge and skills. Many have gone on to pursue successful careers in large accelerator laboratories such as CERN, in industry or in universities.

The JUAS is turning 30 this year: Let's celebrate together this important milestone during a full day at CERN on 27th November 2024!

The main goal of this event is of course to get together and it will be also the occasion to present to all of you the [JUAS-2024 book](#), which has been written for this occasion and which will be released on 15/11/2024.

We do hope that you will be able to join to share a great moment together!



The Joint Universities Accelerator School (JUAS) started in 1994 as “an experiment”

Celebration of the 30th anniversary of JUAS and presentation of the JUAS book

Wednesday 27 Nov 2024, 09:15 → 18:30 Europe/Zurich

81/R-003A - Science Gateway Auditorium A (CERN)

Elias Métral (CERN)

Description The Joint Universities Accelerator School (JUAS) has provided postgraduate-level education in the science and technology of particle accelerators to more than 1400 students since 1994. Most have earned credits towards Masters or Doctoral degrees at our Partner Universities in Europe, while students at other universities around the world and early-career professionals have sought to enhance their applicable knowledge and skills. Many have gone on to pursue successful careers in large accelerator laboratories such as CERN, in industry or in universities.

The JUAS is turning 30 this year: Let's celebrate together this important milestone during a full day at CERN on 27th November 2024!

The main goal of this event is of course to get together and it will be also the occasion to present to all of you the [JUAS-2024 book](#), which has been written for this occasion and which will be released on 15/11/2024.

We do hope that you will be able to join to share a great moment together!



CERN Yellow Reports:
School Proceedings

CERN-2024-003


- 19 Editorial Board members
- 62 authors
- 4 volumes
- 2371 pages

Proceedings of the
Joint Universities Accelerator School
(JUAS)

Courses and exercises

Editorial committee:
Elias Métral (Chair), Frédérick Bordry, Marco Bozzo, Phil Burrows,
Joachim Enders, Angeles Faus-Golfe, Terry Garvey, Sophie Kazamias,
Yuri Kubyshin, Philippe Lebrun, Joël Le Duff, François Méot,
Luigi Palumbo, Marcelle Rey-Campagnolle, Louis Rinolfi,
Vittorio Vaccaro[†], Ursula van Rienen, Jens Vigen, Carsten Welsch

[†] Deceased 11 February 2023



The Joint Universities Accelerator School (JUAS) started in 1994 as “an experiment”

Celebration of the 30th anniversary of JUAS and presentation of the JUAS book

Wednesday 27 Nov 2024, 09:15 → 18:30 Europe/Zurich

81/R-003A - Science Gateway Auditorium A (CERN)

Elias Métral (CERN)

Description The Joint Universities Accelerator School (JUAS) has provided postgraduate-level education in the science and technology of particle accelerators to more than 1400 students since 1994. Most have earned credits towards Masters or Doctoral degrees at our Partner Universities in Europe, while students at other universities around the world and early-career professionals have sought to enhance their applicable knowledge and skills. Many have gone on to pursue successful careers in large accelerator laboratories such as CERN, in industry or in universities.

The JUAS is turning 30 this year: Let's celebrate together this important milestone during a full day at CERN on 27th November 2024!

The main goal of this event is of course to get together and it will be also the occasion to present to all of you the [JUAS-2024 book](#), which has been written for this occasion and which will be released on 15/11/2024.

We do hope that you will be able to join to share a great moment together!



CERN Yellow Reports:
School Proceedings

CERN-2024-003

- 19 Editorial Board members
- 62 authors
- 4 volumes
- 2371 pages


Proceedings of the
Joint Universities Accelerator School
(JUAS)

With exercises and solutions

Courses and exercises

Editorial committee:
Elias Métral (Chair), Frédérick Bordry, Marco Bozzo, Phil Burrows, Joachim Enders, Angeles Faus-Golfe, Terry Garvey, Sophie Kazamias, Yuri Kubyshin, Philippe Lebrun, Joël Le Duff, François Méot, Luigi Palumbo, Marcelle Rey-Campagnolle, Louis Rinolfi, Vittorio Vaccaro[†], Ursula van Rienen, Jens Vigen, Carsten Welsch

[†] Deceased 11 February 2023



The Joint Universities Accelerator School (JUAS) started in 1994 as “an experiment”

Celebration of the 30th anniversary of JUAS and presentation of the JUAS book

Wednesday 27 Nov 2024, 09:15 → 18:30 Europe/Zurich

81/R-003A - Science Gateway Auditorium A (CERN)

Elias Métral (CERN)

Description The Joint Universities Accelerator School (JUAS) has provided postgraduate-level education in the science and technology of particle accelerators to more than 1400 students since 1994. Most have earned credits towards Masters or Doctoral degrees at our Partner Universities in Europe, while students at other universities around the world and early-career professionals have sought to enhance their applicable knowledge and skills. Many have gone on to pursue successful careers in large accelerator laboratories such as CERN, in industry or in universities.

The JUAS is turning 30 this year: Let's celebrate together this important milestone during a full day at CERN on 27th November 2024!

The main goal of this event is of course to get together and it will be also the occasion to present to all of you the [JUAS-2024 book](#), which has been written for this occasion and which will be released on 15/11/2024.

We do hope that you will be able to join to share a great moment together!



CERN Yellow Reports:
School Proceedings

CERN-2024-003

- 19 Editorial Board members
- 62 authors
- 4 volumes
- 2371 pages


Proceedings of the
Joint Universities Accelerator School
(JUAS)

With exercises and solutions

Courses and exercises

Editorial committee:
Elias Métral (Chair), Frédérick Bordry, Marco Bozzo, Phil Burrows,
Joachim Enders, Angeles Faus-Golfe, Terry Garvey, Sophie Kazamias,
Yuri Kubyshin, Philippe Lebrun, Joël Le Duff, François Méot,
Luigi Palumbo, Marcelle Rey-Campagnolle, Louis Rinolfi,
Vittorio Vaccaro[†], Ursula van Rienen, Jens Vigen, Carsten Welsch

[†] Deceased 11 February 2023



<https://doi.org/10.23730/CYRSP-2024-003>





Part I: The science of particle accelerators
— Course 1 (730 p.)



Part I: The science of particle accelerators
— Course 1 (730 p.)

Part II: The technology and applications —
Course 2 (1138 p.)



Part I: The science of particle accelerators
— Course 1 (730 p.)

Part II: The technology and applications —
Course 2 (1138 p.)

Part III: JUAS seminars (332 p.)



Part I: The science of particle accelerators
— Course 1 (730 p.)

Part II: The technology and applications —
Course 2 (1138 p.)

Part III: JUAS seminars (332 p.)

Part IV: Origin and history of JUAS (171 p.)



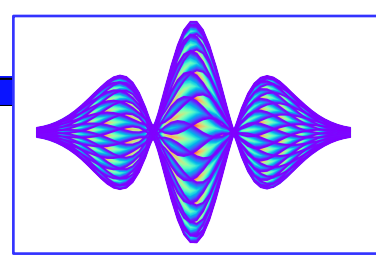
Part I: The science of particle accelerators
— Course 1 (730 p.)

Part II: The technology and applications —
Course 2 (1138 p.)

Part III: JUAS seminars (332 p.)

Part IV: Origin and history of JUAS (171 p.)

“The CERN Reports, often known as Yellow Reports, have been published since 1955. The JUAS proceedings, with 2200 pages + 171 pages of appendix (original material), is the largest report—only containing original material— ever published in the series” (Jens Vigen, from CERN Library)



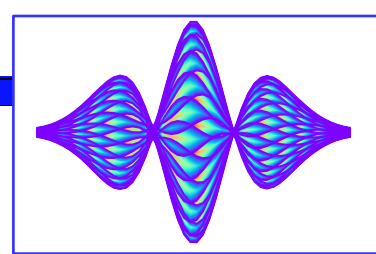
CERN Yellow Reports of CAS proceedings were very useful for me



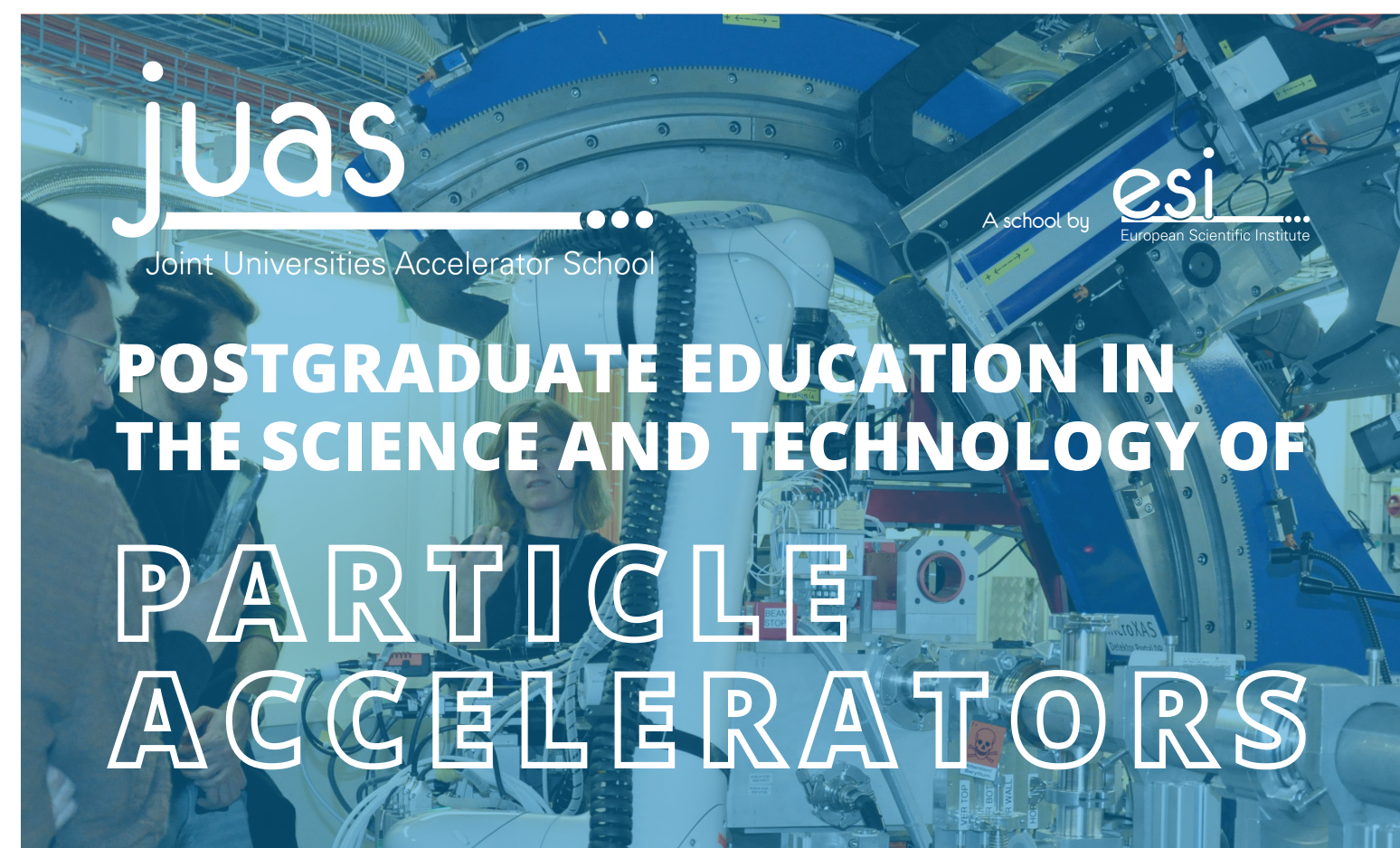
CERN Yellow Reports of CAS proceedings were very useful for me



=> We hope these JUAS proceedings will also be very useful for the next generation (and all people interested)!



JUAS 2026



juas
Joint Universities Accelerator School

A school by esi
European Scientific Institute

POSTGRADUATE EDUCATION IN THE SCIENCE AND TECHNOLOGY OF PARTICLE ACCELERATORS

COURSE 1
THE SCIENCE OF
PARTICLE ACCELERATORS
12 January - 13 February 2026



COURSE 2
TECHNOLOGY & APPLICATIONS
OF PARTICLE ACCELERATORS
16 February - 20 March 2026



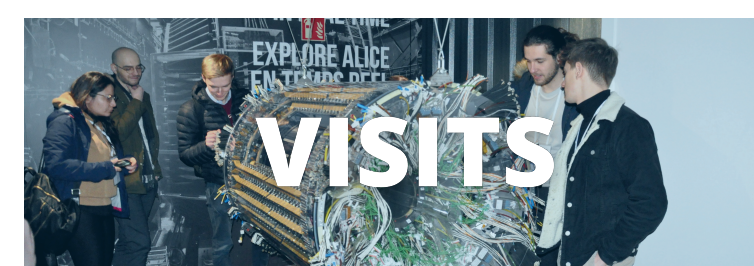
LECTURES



WORKSHOPS



SEMINARS



VISITS

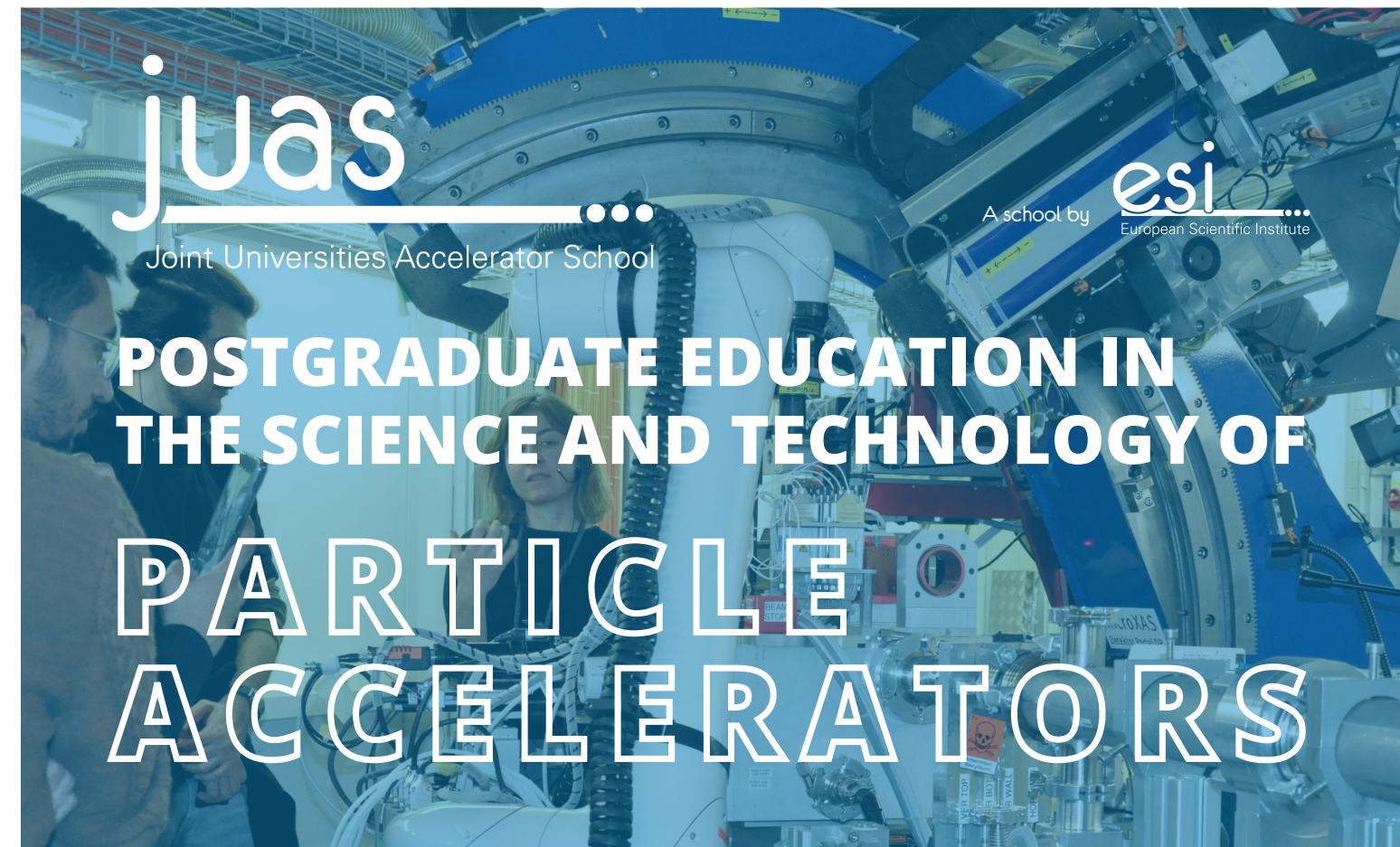
PARTNER UNIVERSITIES



WITH THE SUPPORT OF



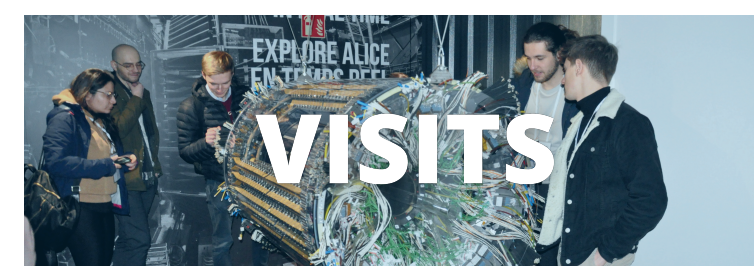
JUAS 2026



COURSE 1
THE SCIENCE OF
PARTICLE ACCELERATORS
12 January - 13 February 2026



COURSE 2
TECHNOLOGY & APPLICATIONS
OF PARTICLE ACCELERATORS
16 February - 20 March 2026



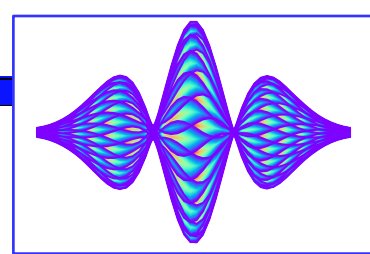
with EXAMS!
(both written and oral)

PARTNER UNIVERSITIES



WITH THE SUPPORT OF





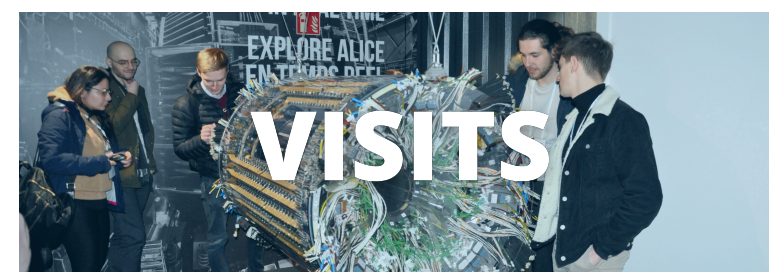
JUAS 2026



COURSE 1
THE SCIENCE OF
PARTICLE ACCELERATORS
12 January - 13 February 2026

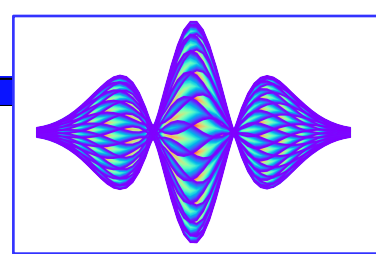


COURSE 2
TECHNOLOGY & APPLICATIONS
OF PARTICLE ACCELERATORS
16 February - 20 March 2026



with EXAMS!
(both written
and oral)





JUAS 2026



COURSE 1
THE SCIENCE OF
PARTICLE ACCELERATORS
12 January - 13 February 2026



COURSE 2
TECHNOLOGY & APPLICATIONS
OF PARTICLE ACCELERATORS
16 February - 20 March 2026



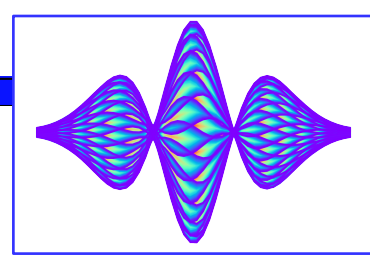
with EXAMS!
(both written and oral)

PARTNER UNIVERSITIES



WITH THE SUPPORT OF

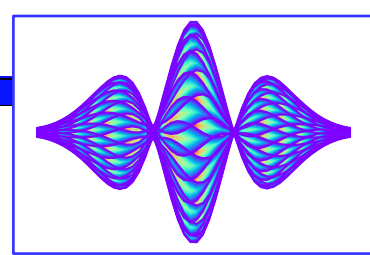




Evolution of the Partner Universities



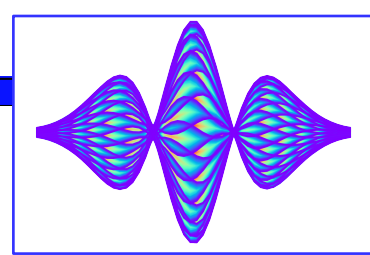
University's name	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Université Grenoble Alpes (formerly Université Joseph Fourier Grenoble 1)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grenoble INP - UGA Institut d'ingénierie et de management (formerly Institut National Polytechnique de Grenoble)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Technische Universität Darmstadt	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Karlsruher Institut für Technologie	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Universitat Politècnica de Catalunya				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Universitat Autònoma de Barcelona				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Università degli studi di Napoli Federico II				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Università degli studi di Roma La Sapienza				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Politecnico di Torino				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Università degli studi di Genova								■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Technische Universität Berlin								■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Universitat de València								■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Universität Heidelberg														■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
University of Liverpool																			■	■	■	■	■	■	■	■	■	■	■	■	■	■
Université Paris-Saclay (formerly Université Paris-Sud)																				■	■	■	■	■	■	■	■	■	■	■	■	■
University of Rostock																					■	■	■	■	■	■	■	■	■	■	■	■
University of Oxford																						■	■	■	■	■	■	■	■	■	■	■
University Oslo																							■	■	■	■	■	■	■	■	■	■
University Medical Center Groningen																															■	■
Total number of Partner Universities	4	4	4	9	9	9	9	11	11	11	11	11	11	12	12	12	12	13	14	15	15	15	16	16	16	16	16	14	14	15	15	



Evolution of the Partner Universities



University's name	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Université Grenoble Alpes (formerly Université Joseph Fourier Grenoble 1)																																
Grenoble INP - UGA Institut d'ingénierie et de management (formerly Institut National Polytechnique de Grenoble)																																
Technische Universität Darmstadt																																
Karlsruher Institut für Technologie																																
Universitat Politècnica de Catalunya																																
Universitat Autònoma de Barcelona																																
Università degli studi di Napoli Federico II																																
Università degli studi di Roma La Sapienza																																
Politecnico di Torino																																
Università degli studi di Genova																																
Technische Universität Berlin																																
Universitat de València																																
Universität Heidelberg																																
University of Liverpool																																
Université Paris-Saclay (formerly Université Paris-Sud)																																
University of Rostock																																
University of Oxford																																
University Oslo																																
University Medical Center Groningen																																
Total number of Partner Universities	4	4	4	9	9	9	9	11	11	11	11	11	11	12	12	12	12	13	14	15	15	15	16	16	16	16	16	14	14	15	15	

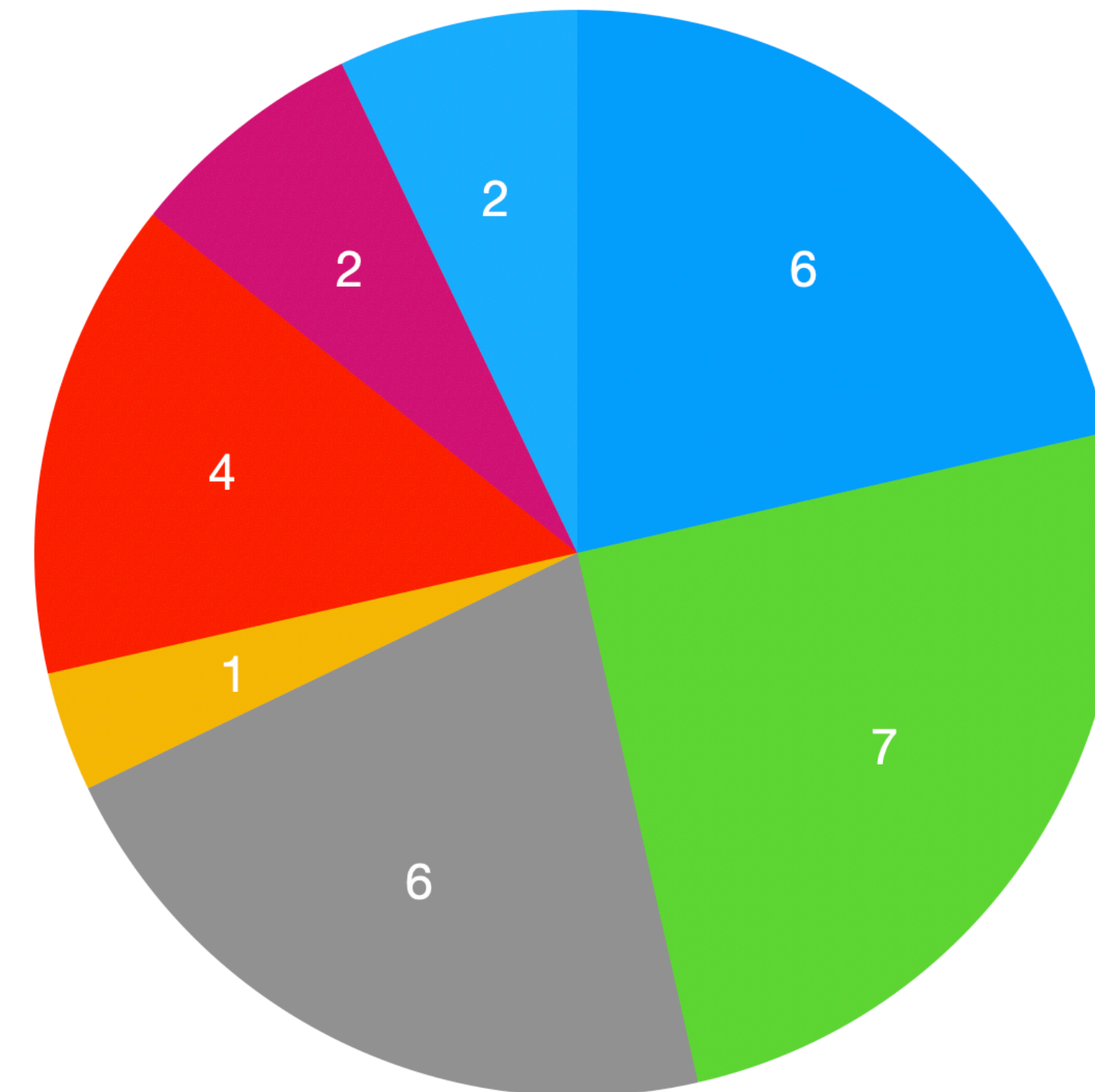


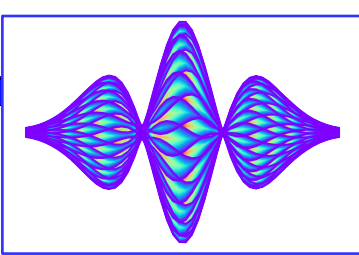
Summary of the locations of all the past Advisory Board meetings (since 1999, when it was decided to rotate)

Year	City	Country	Meeting's number
2026	Karlsruhe	Germany	28
2025	Archamps	France	27
2024	Groningen	Netherlands	26
2023	Oxford	UK	25
2022	Rome	Italy	24
2021	Videoconference	Videoconference	23
2020	Videoconference	Videoconference	22
2019	Barcelona	Spain	21
2018	Rostock	Germany	20
2017	Paris-Saclay	France	19
2016	Naples	Italy	18
2015	Liverpool	UK	17
2014	Grenoble	France	16
2013	Berlin	Germany	15
2012	Genoa	Italy	14
2011	Heidelberg	Germany	13
2010	Rome	Italy	12
2009	Grenoble	France	11
2008	Barcelona	Spain	10
2007	Darmstadt	Germany	9
2006	Naples	Italy	8
2005	Archamps	France	7
2004	Valencia	Spain	6
2003	Rome	Italy	5
2002	Barcelona	Spain	4
2001	Grenoble	France	3
2000	Darmstadt	Germany	2
1999	Karlsruhe	Germany	1



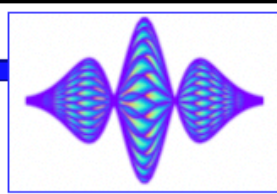
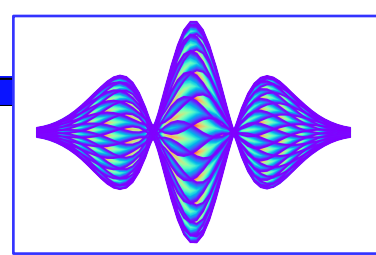
France	6
Germany	7
Italy	6
Netherlands	1
Spain	4
UK	2
Videoconference	2
	28



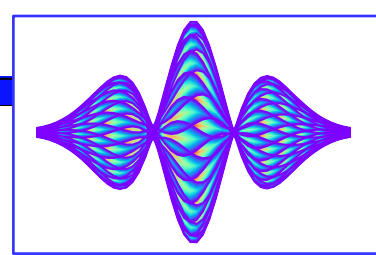


Evolution of the Collaborating Institutions and Programmes

Name	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024					
AccelencE (funded by the DFG)																																				
ALBA (ALBA synchrotron)																																				
ARIES																																				
Bergoz (Bergoz Instrumentation)																																				
BESSY II (Berlin)																																				
CEA (Commissariat à l'Energie Atomique et aux énergies alternatives)																																				
CERN (European Organization for Nuclear Research)																																				
CNRS/IN2P3																																				
Computer Controls																																				
CPAN (Centro Nacional de Física de Partículas, Astropartículas y Nuclear) or CIEMAT																																				
DESY (Deutsches Elektronen-Synchrotron)																																				
Diamond (Light Source)																																				
ELETTRA (Elettra Sincrotrone Trieste)																																				
ERASMUS activity financed by the SOCRATES programme of the European Union																																				
ESRF (European Synchrotron Radiation Facility)																																				
ESS (European Spallation Source)																																				
ESS Bilbao																																				
Eucard-2																																				
European Commission																																				
FRIATEC																																				
GANIL (Grand Accélérateur National d'Ions Lourds)																																				
GSI (GSI Helmholtz Centre for Heavy Ion Research)																																				
HIC for FAIR																																				
HUG (Hôpitaux Universitaires de Genève)																																				
HZB (Helmholtz-Zentrum Berlin)																																				
IBA																																				
IJCLab (Laboratoire de Physique des 2 Infinis Irène Joliot-Curie)																																				
INFN (Istituto Nazionale di Fisica Nucleare)																																				
JAI (John Adams Institute for Accelerator Science)																																				
KIT (Karlsruher Institut für Technologie)																																				
LASCALA (Erasmus Mundus Master)																																				
Linktronix																																				
French Local Authorities (Conseil Départemental de Haute Savoie et Parc d'Archamps)																																				
Ministerio de Ciencia y Tecnología (Spain)																																				
Ministerio de Educación e Innovación (Spain)																																				
Morgan Technical Ceramics Wesgo Metals																																				
MYRRHA (Multi-purpose hYbrid Research Reactor for High-tech Applications)																																				
NHa (Normandy Hadrontherapy)																																				
OMA (Optimization of Medical Accelerators)																																				
oPAC																																				
PMB Alcen																																				
PSI (Paul Scherrer Institut)																																				
P2iO (Physics of 2 Infinities and Origins)																																				
SFP (Société Française de Physique) Division Accélérateurs																																				
SOLEIL (SOLEIL synchrotron)																																				
UKRI (UK Research and Innovation) STFC / ISIS																																				
Total number	2	2	2	2	3	3	3	6	9	10	11	12	13	13	14	14	14	12	15	19	20	23	25	24	25	24	22	22	21	26	26					



**MORE SPONSORS will be needed
in the future to be able to continue JUAS and
propose the courses in good conditions and at
a competitive price!**



NETWORKING & JOB FAIR DAY

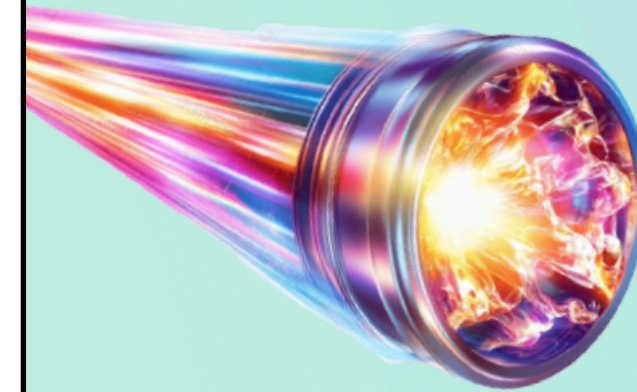
Accelerate your career!



OPEN TO ALL JUAS ALUMNI AND FRIENDS

09/03

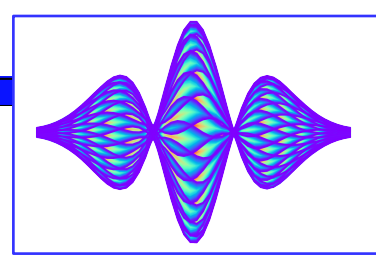
14H-17H



at
ESI ARCHAMPS,
61, rue Antoine Redier
74160 ARCHPARC

Participating JUAS Sponsors:





For the 1st time!

NETWORKING & JOB FAIR DAY

Accelerate your career!



OPEN TO ALL JUAS ALUMNI AND FRIENDS

09/03

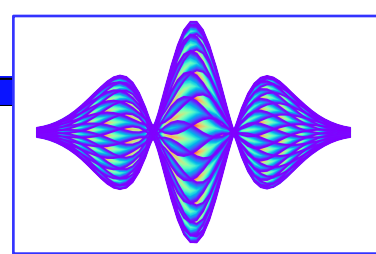
14H-17H



at
ESI ARCHAMPS,
61, rue Antoine Redier
74160 ARCHPARC

Participating JUAS Sponsors:





For the 1st time!

NETWORKING & JOB FAIR DAY

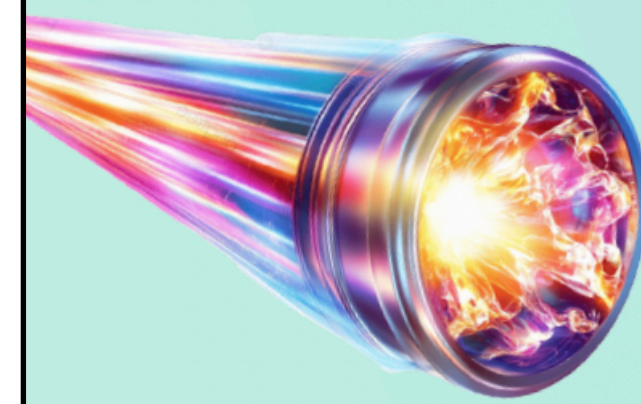
Accelerate your career!



OPEN TO ALL JUAS ALUMNI AND FRIENDS

09/03

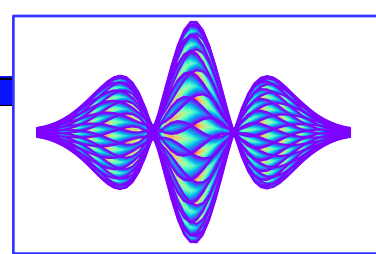
14H-17H



at
ESI ARCHAMPS,
61, rue Antoine Redier
74160 ARCHPARC

bergoz
INSTRUMENTATION
visited few days before





For the 1st time!

NETWORKING & JOB FAIR DAY

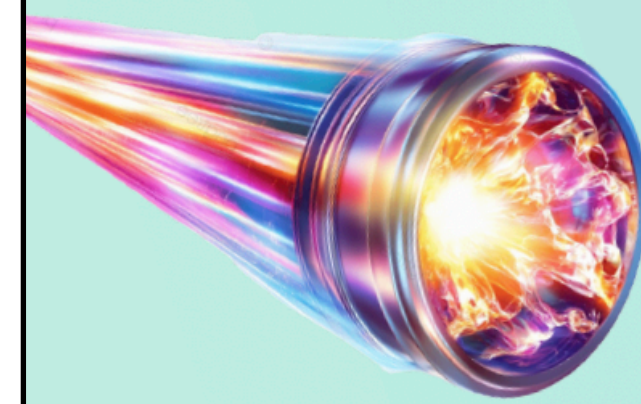
Accelerate your career!



OPEN TO ALL JUAS ALUMNI AND FRIENDS

09/03

14H-17H

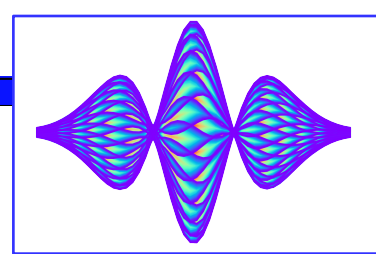


at
ESI ARCHAMPS,
61, rue Antoine Redier
74160 ARCHPARC

bergoz
INSTRUMENTATION
visited few days before



- 1) CEA: Catherine Madec
- 2) CERN: Mike Lamont
- 3) CNRS: Angeles Faus Golfe
- 4) ESRF: Qing Qin & Jean-Luc Revol
- 5) ESS: Ciprian Plostinar
- 6) GANIL: Bertrand Jacquot
- 7) GSI: Frank Becker
- 8) INFN: Enrica Chiadroni
- 9) MYRRHA: Adrian Fabich
- 10) PSI: Rasmus Ischebeck



NETWORKING & JOB FAIR DAY

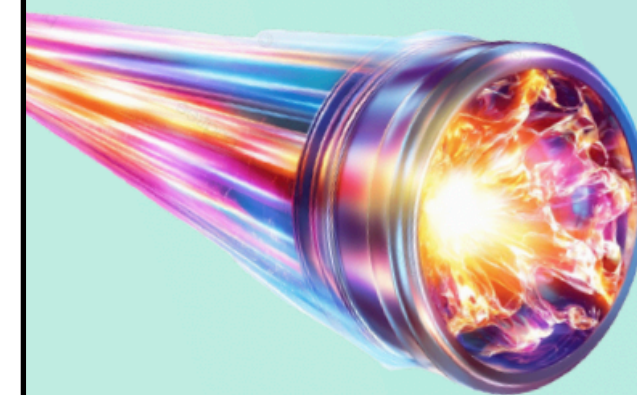
Accelerate your career!



OPEN TO ALL JUAS ALUMNI AND FRIENDS

09/03

14H-17H



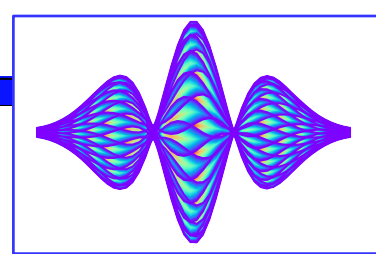
at
ESI ARCHAMPS,
61, rue Antoine Redier
74160 ARCHPARC

For the 1st time!

The Chair of this session (Jean-Luc Revol) attended the Pre-JUAS course in Grenoble in 1990



Participating JUAS Sponsors:



NETWORKING & JOB FAIR DAY

Accelerate your career!



OPEN TO ALL JUAS ALUMNI AND FRIENDS

09/03

14H-17H

at
ESI ARCHAMPS,
61, rue Antoine Redier
74160 ARCHPARC



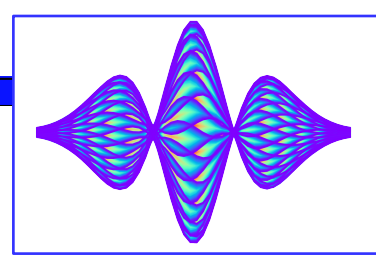
For the 1st time!

**Ciprian Plostinar (ESS),
Mike Lamont (CERN retiree)
and Frank Becker (GSI) are
JUAS alumni**

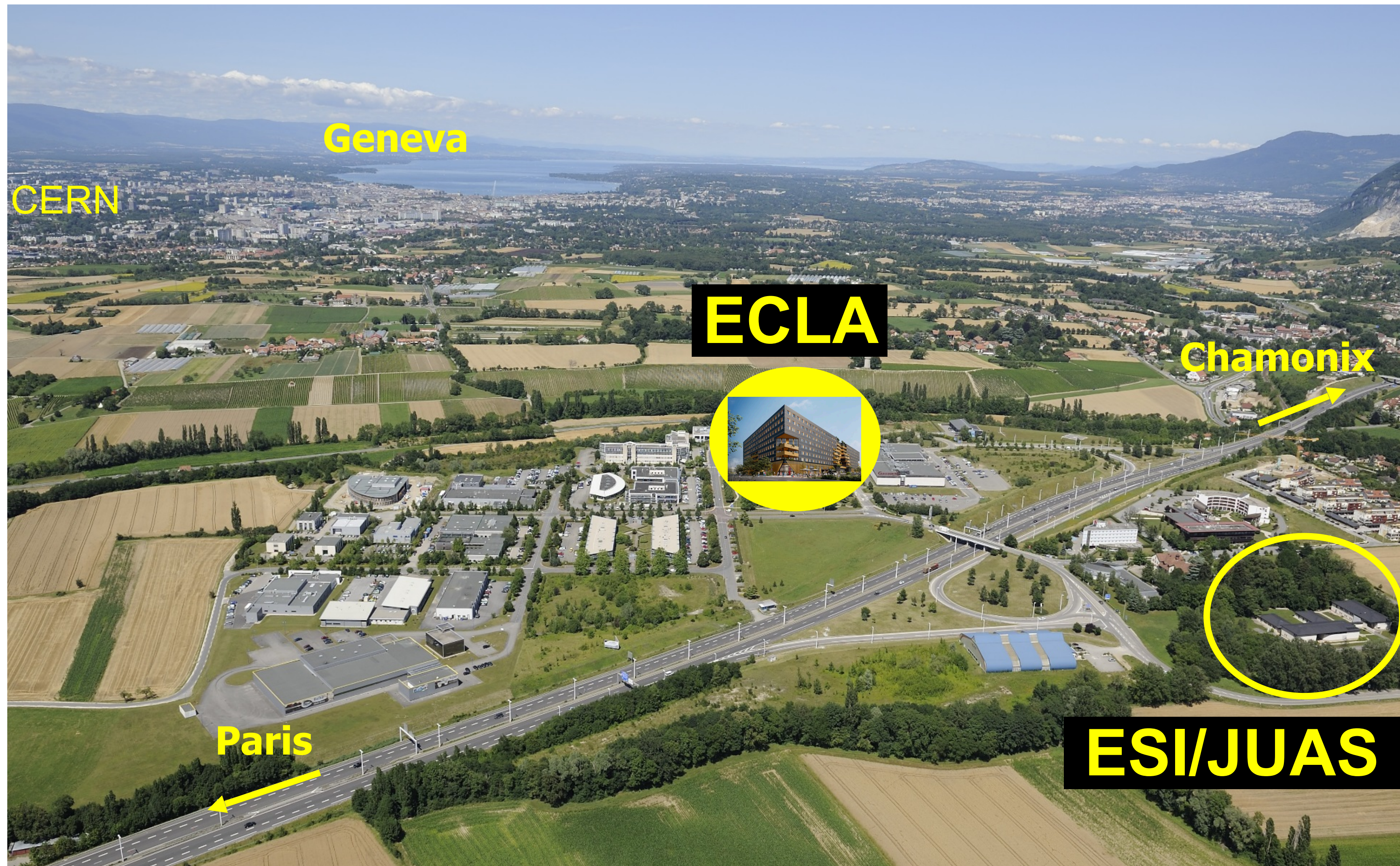


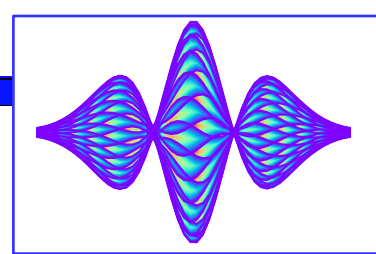
Participating JUAS Sponsors:





Brand-new (ECLA) accommodation this year

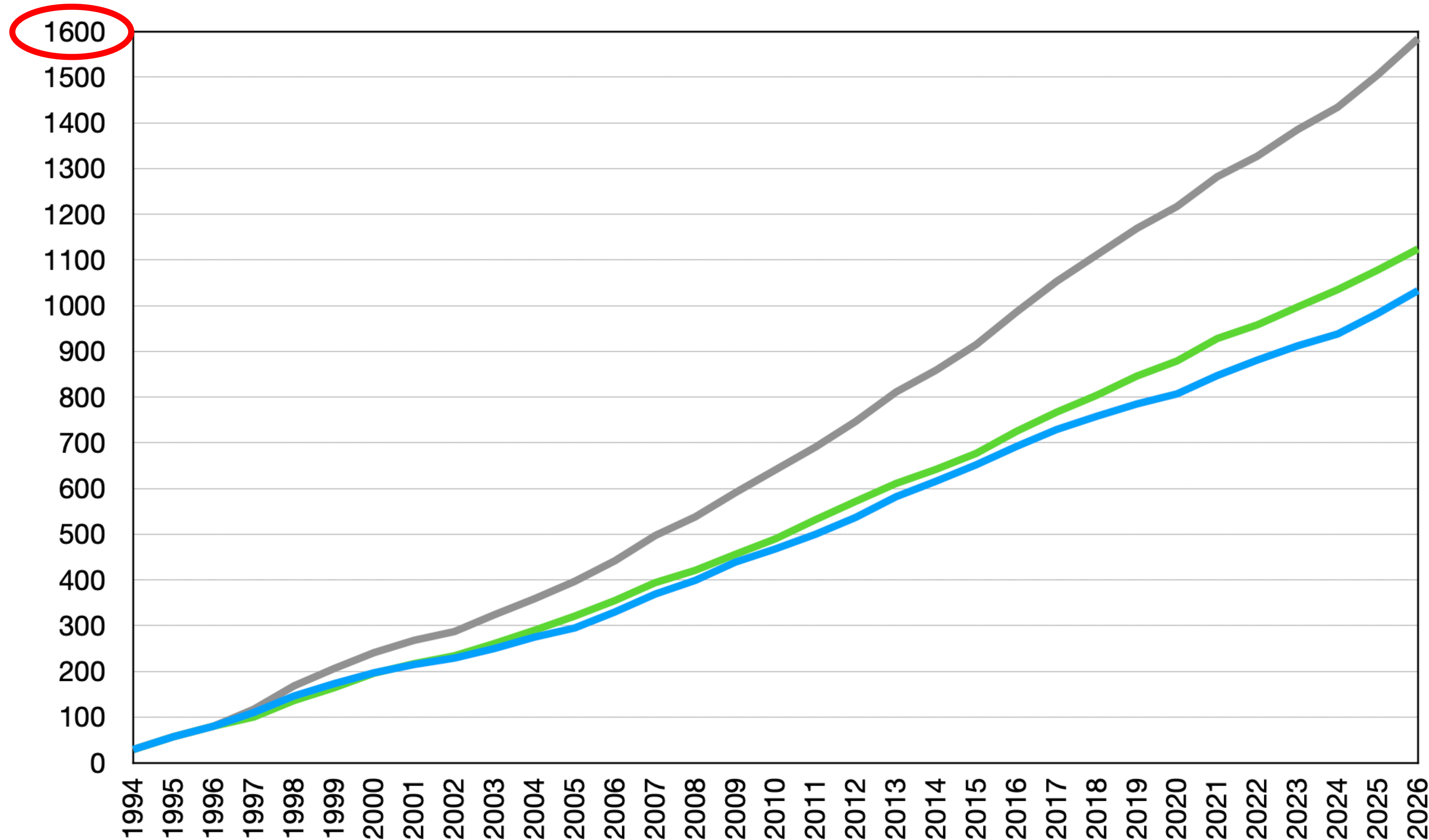


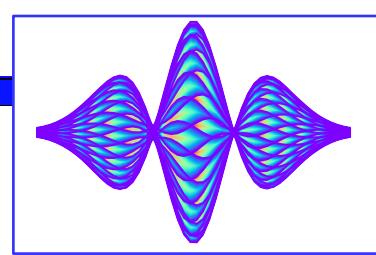


Number of students

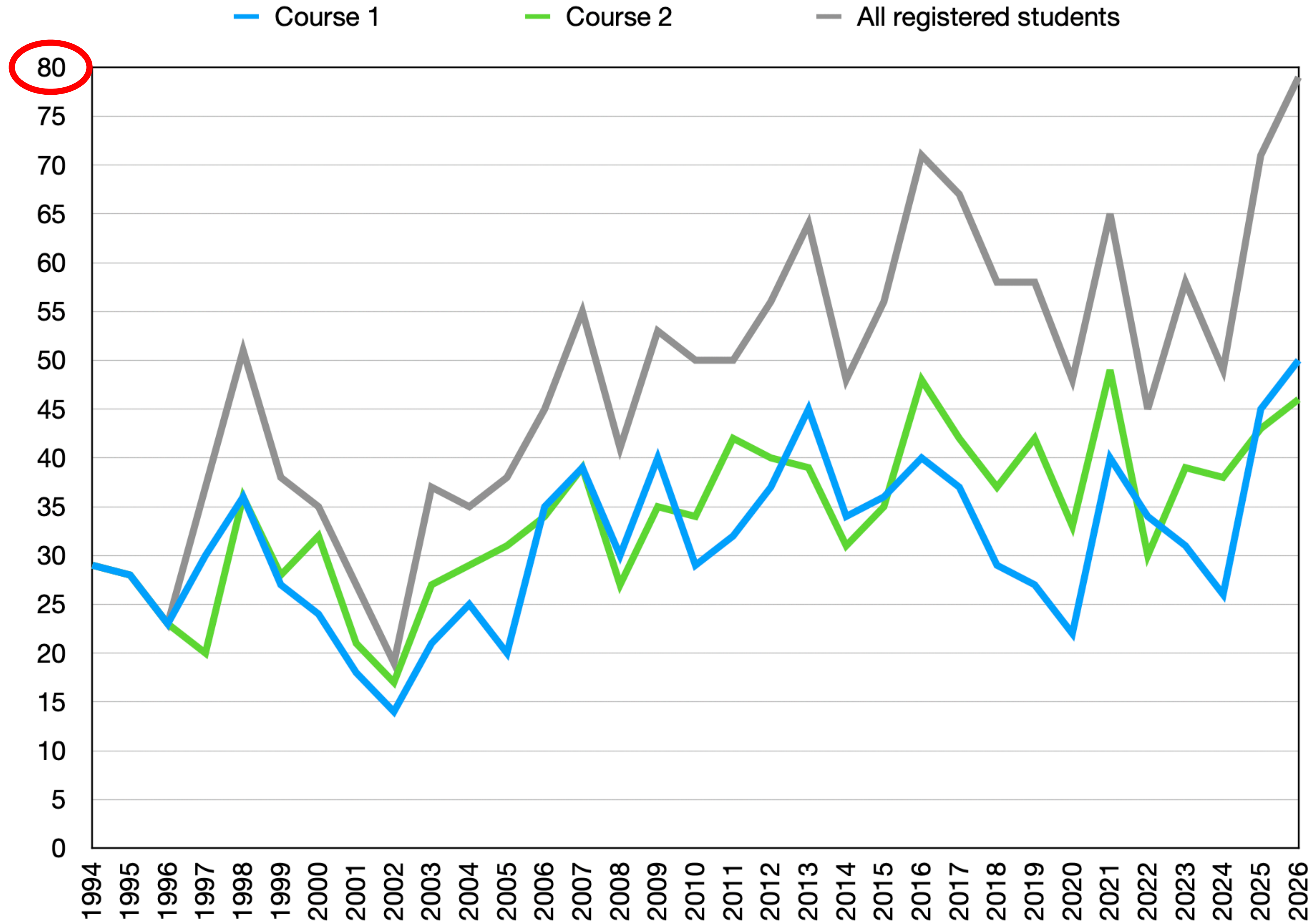


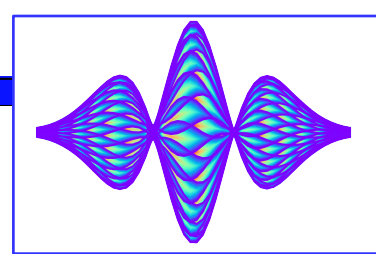
— Course 1 — Course 2 — All registered students



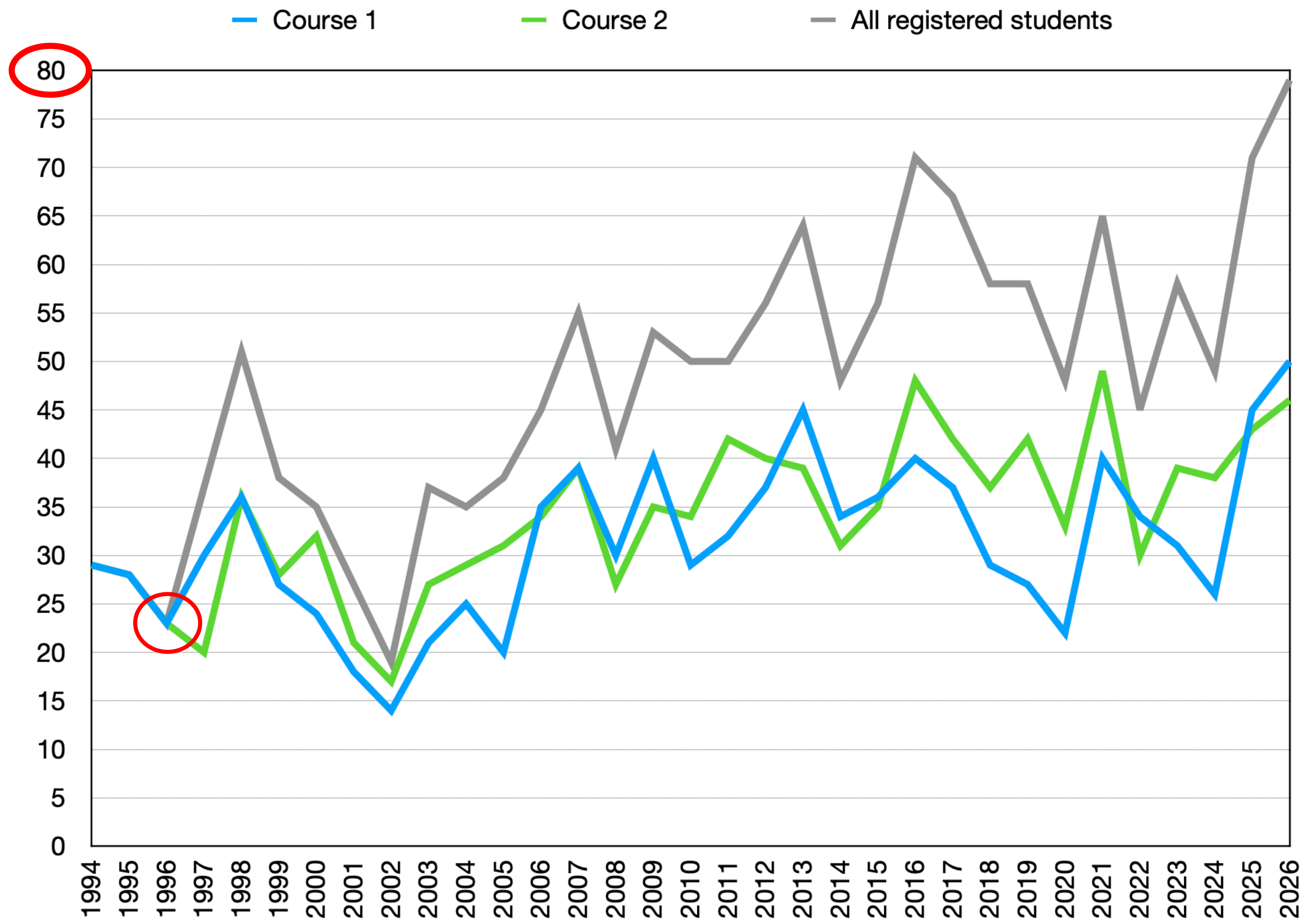


Number of students





Number of students



Myself (during the JUAS-1996)

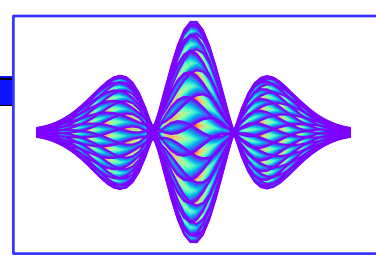


Myself (during the JUAS-1996)

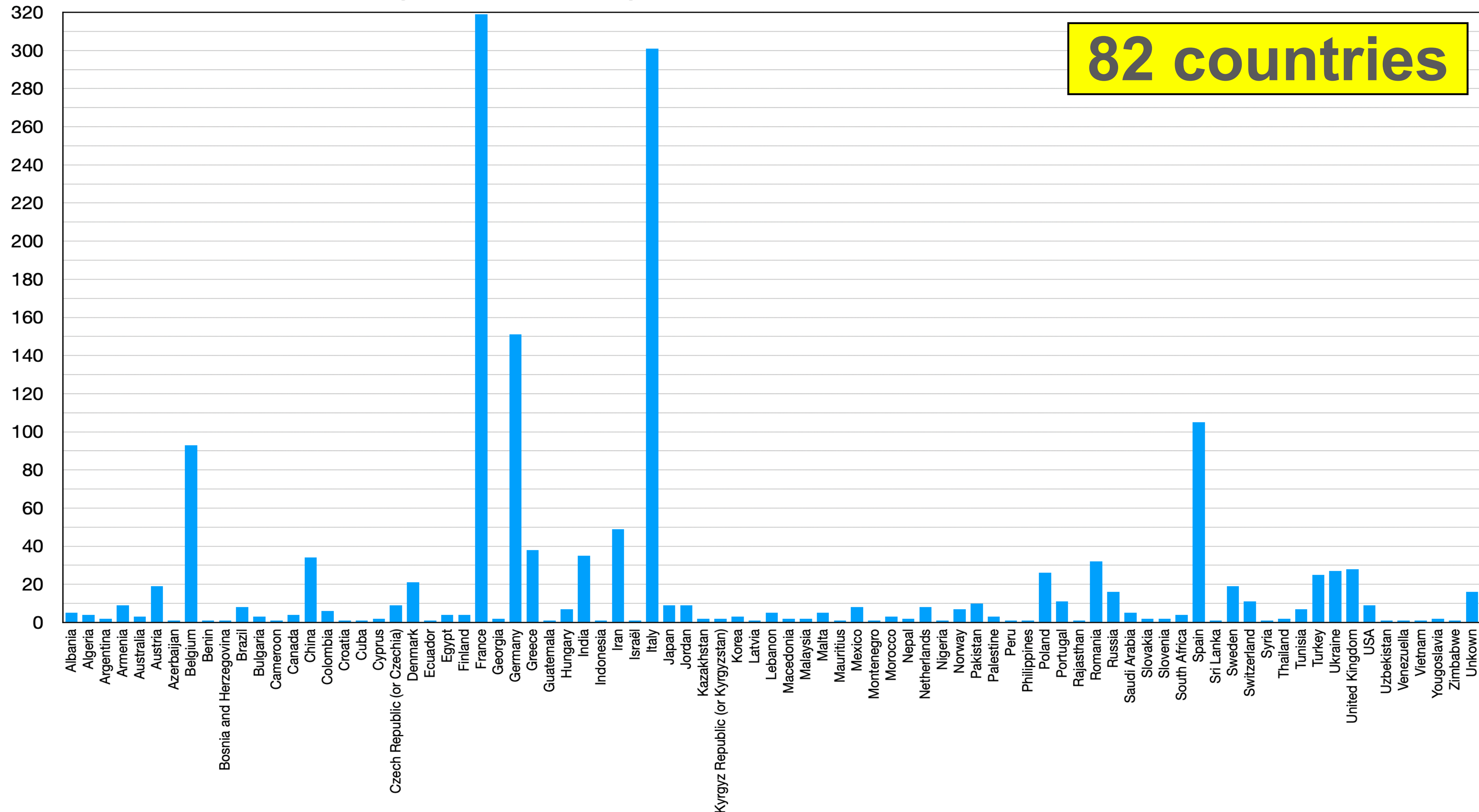


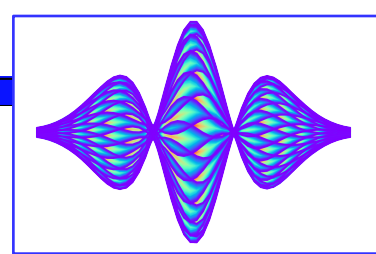


- Former student
- Former assistant lecturer (transverse and longitudinal beam dynamics)
- Former lecturer for the course on longitudinal beam dynamics
- Deputy director between 2014 and August 2021
- Director since August 2021

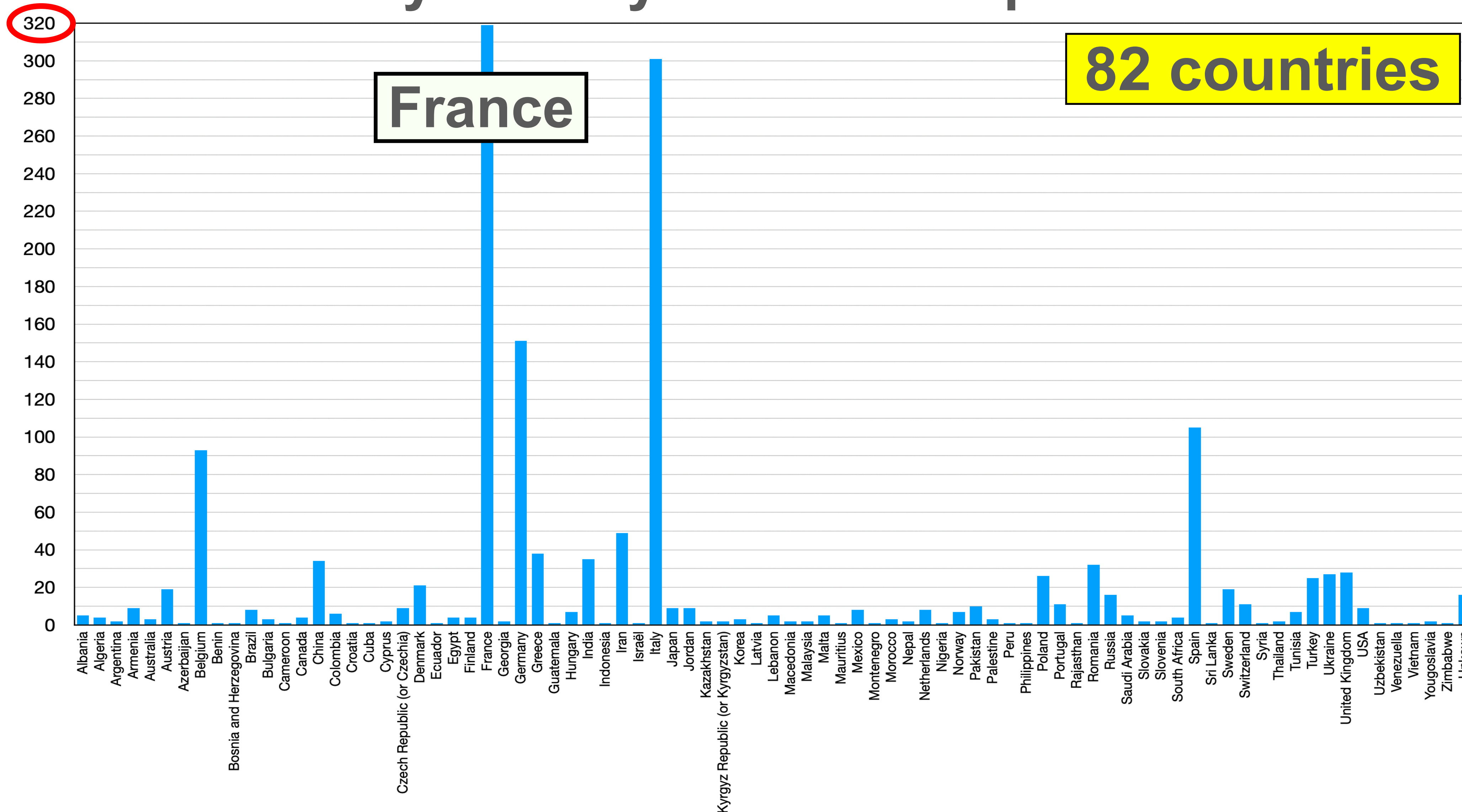


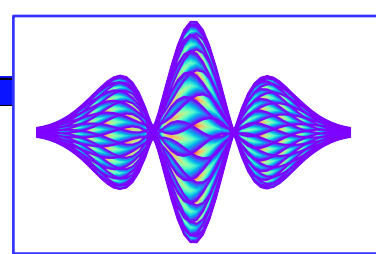
Number of students by country of citizenship



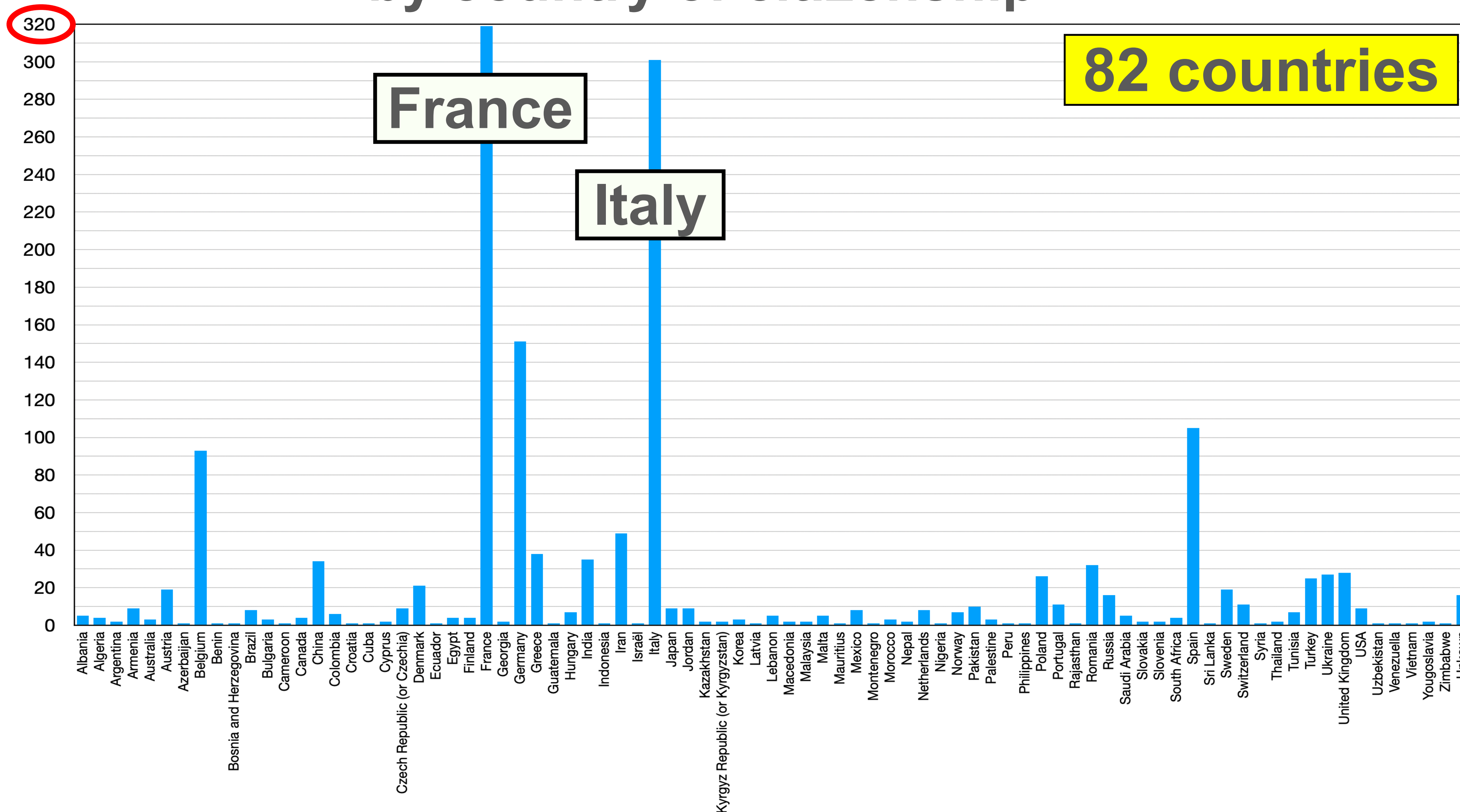


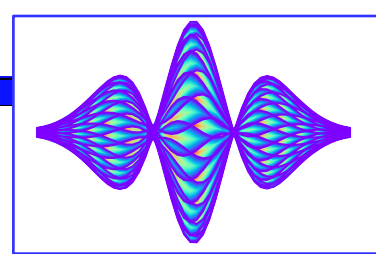
Number of students by country of citizenship



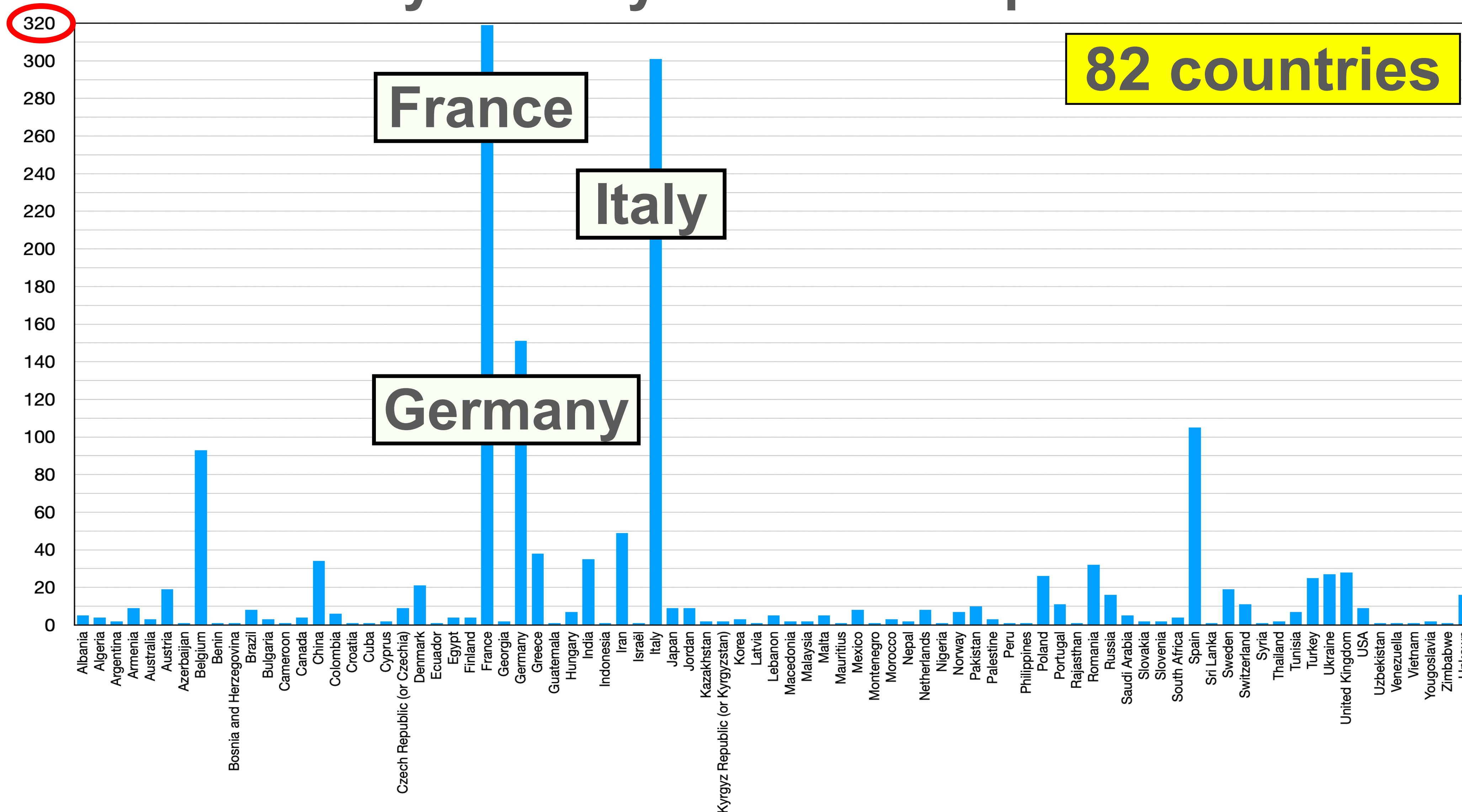


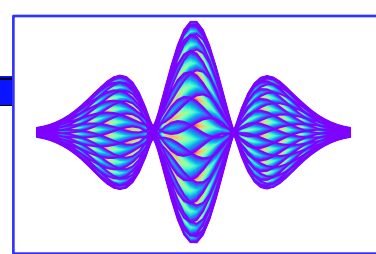
Number of students by country of citizenship



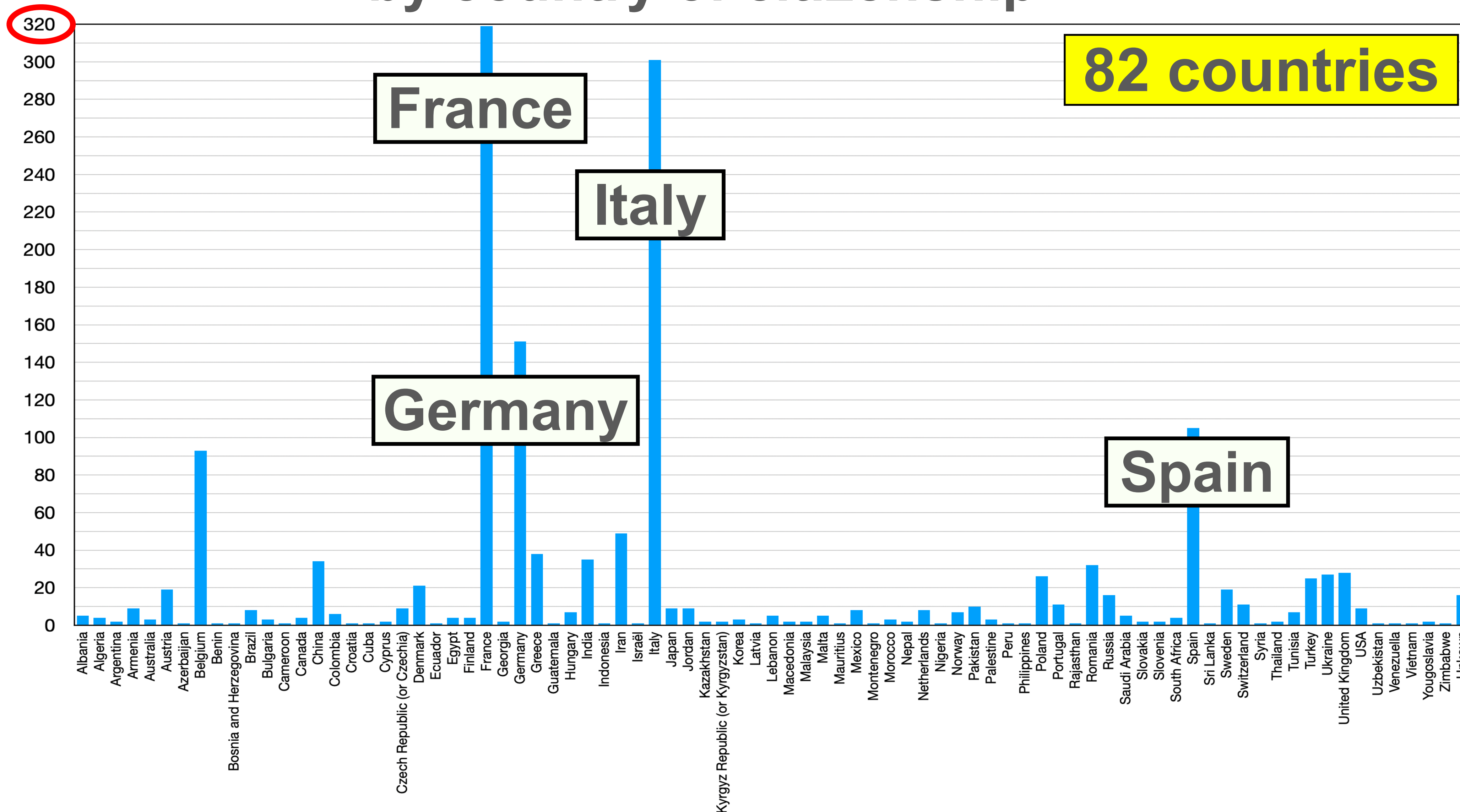


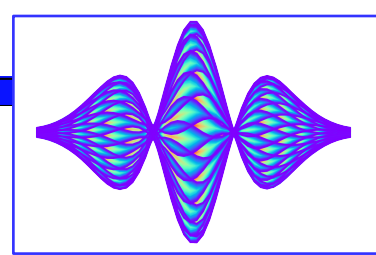
Number of students by country of citizenship



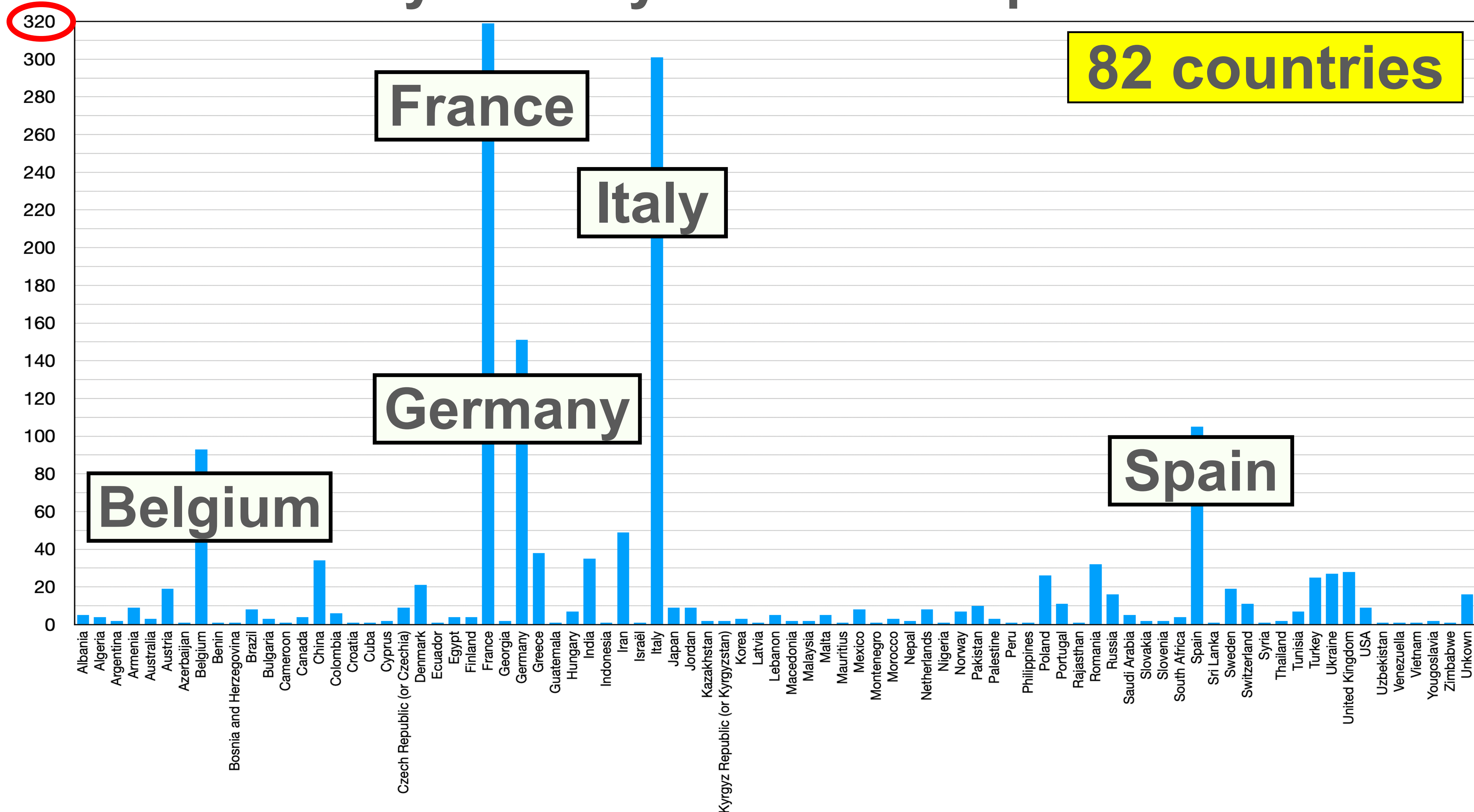


Number of students by country of citizenship





Number of students by country of citizenship



JUAS-IPAC Prize from the EPS-AG

<https://www.eps-ag.org/prizes-and-grants/>

Prizes and Grants

The **EPS-AG European Accelerator Prizes** have been awarded since 1994. The Prizes are awarded every three years, at IPAC conferences in Europe.

The awards are for individuals:

- The Rolf Wideröe Prize for outstanding work in the accelerator field, with no age limit,
- The Gersh Budker Prize for a recent, significant contribution to the accelerator field, with no age limit,
- The Frank Sacherer Prize for an individual in the early part of his or her career, having made a recent significant, original contribution to the accelerator field,
- A prize for a student registered for a PhD or diploma in accelerator physics or engineering, or to a trainee accelerator physicist or engineer in the educational phase of their professional career, for the quality of work and promise for the future. Starting from IPAC'17 this prize will be dedicated to the memory of Bruno Touschek.

In addition, prizes are generally awarded to students whose work, presented in the Student Poster Session at IPAC in Europe, is particularly meritorious.

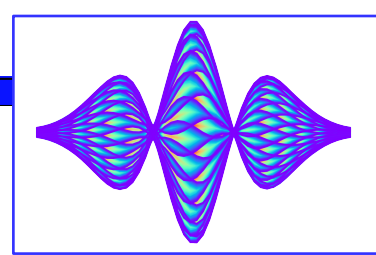
Full information concerning all prizes is published in the Rules of the EPS-AG.



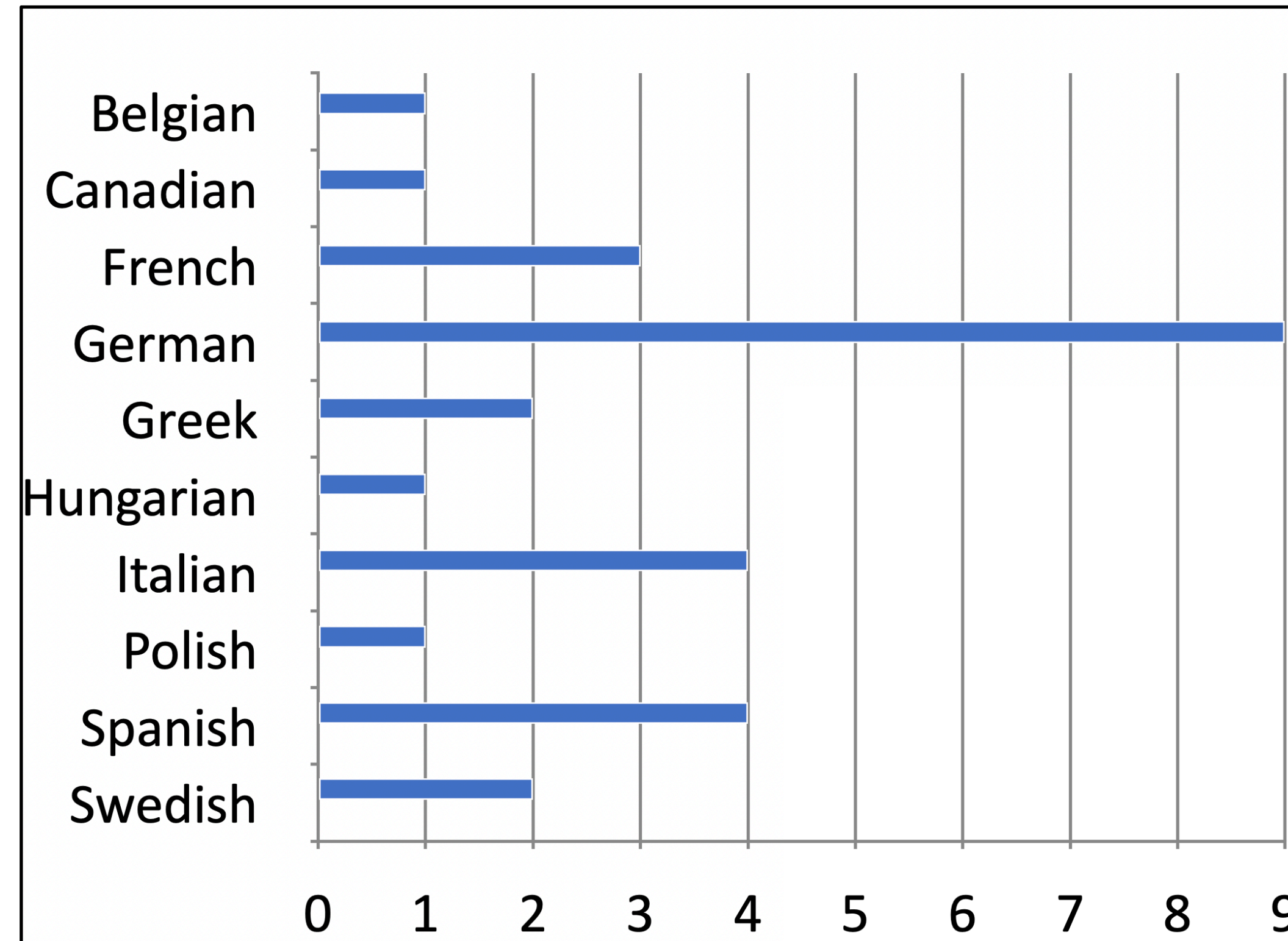
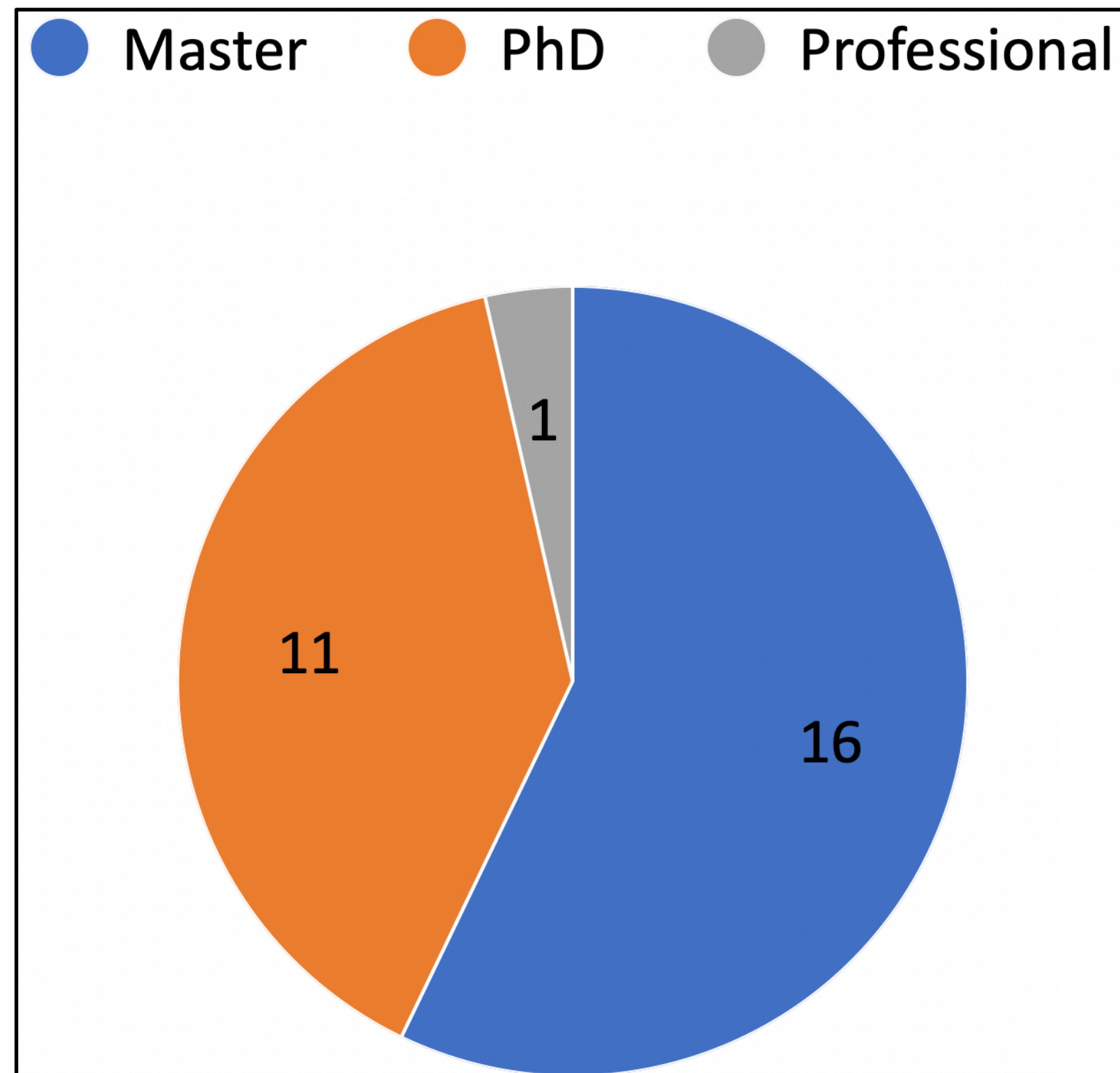
The EPS-AG Medal shows Mercury (Latin Mercurius in Roman religion), commonly identified with the Greek Hermes, the fleet-footed messenger of the gods. The inscription round the circumference reads: "Felix qui potuit cognoscere semina rerum. Quanta per mundum mobilitate volent." (Happy the man who has been able to discover with how great speed the seeds of matter fly through the universe).

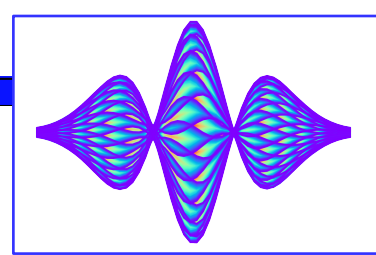
More

The EPS-AG co-ordinates sponsorship from European laboratories for young scientists to attend IPAC conferences, enabling them to benefit from interacting with some of the leading scientists in their field. Sponsorship is also provided for outstanding students from the Joint Universities Accelerator School (JUAS) to attend IPAC.



JUAS - Winners of the JUAS-IPAC Prize from the EPS-AG (since 2006)





JUAS booth @ IPAC



Welcome to JUAS-2026!

E. Métral (CERN, elias.metral@cern.ch): JUAS director



17/03/2023, last day of JUAS-2023

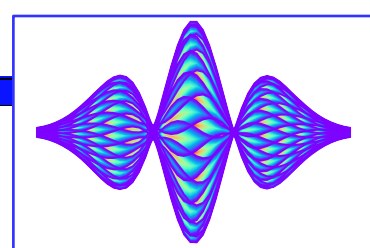
Welcome to JUAS-2026!

E. Métral (CERN, elias.metral@cern.ch): JUAS director

17/03/2023, last day of JUAS-2023

E. Métral, 12/01/2026, ESI, Archamps (France) 1

JUAS is truly a human adventure



CERTIFICATE OF RECOGNITION

IS AWARDED TO

Marcelle Rey-Campagnole

In appreciation of her outstanding vision and devoted service, we are honoured to bestow this award to Marcelle Rey-Campagnole. In her role as the inaugural JUAS director (1994-2000), she demonstrated unwavering commitment, guidance, and enthusiasm while establishing the JUAS school, laying a firm foundation for the school's success over the past three decades. Through her steadfast dedication, she instilled a passion for excellence and inspired both educators and students alike. This award acknowledges her profound influence on our school's development and celebrates the remarkable legacy she has fashioned for future generations.

Jean-Michel THENARD
President of European
Scientific Institute

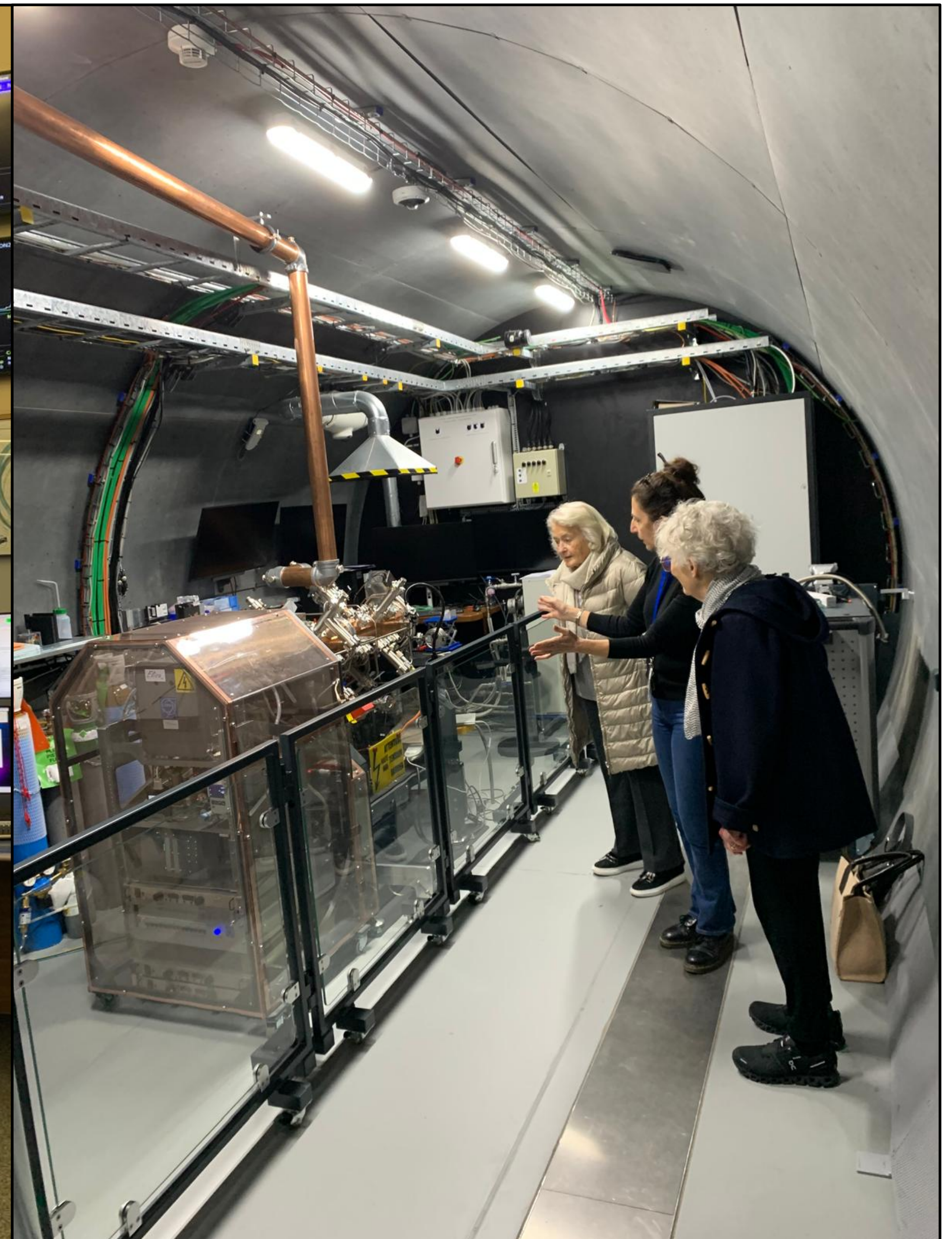
Elias METRAL
Director of Joint Universities
Accelerator School

Mike LAMONT
Director of Accelerators and
Technology at CERN

27/11/2024







CERTIFICATE OF RECOGNITION

IS AWARDED TO

Louis Rinolfi



With sincere thanks, we attribute this award to Louis Rinolfi, the fourth director of JUAS (2011-2016). He played a pivotal role in the lecture series in Grenoble during the four years preceding the inception of the JUAS school, and his dedication and commitment were fundamental to the school's creation. Through his continued collaboration with ESI and JUAS, he has been a key architect in shaping our institution's trajectory and achieving a long history of success. With this award we would like also to acknowledge our extraordinary journey, and celebrate his passion, leadership, and the steadfast support that continues to inspire us all.

Jean-Michel THENARD
President of European
Scientific Institute

Elias METRAL
Director of Joint Universities
Accelerator School

Mike LAMONT
Director of Accelerators and
Technology at CERN

27/11/2024

CERTIFICATE OF RECOGNITION

IS AWARDED TO

Robert Lionel Holland



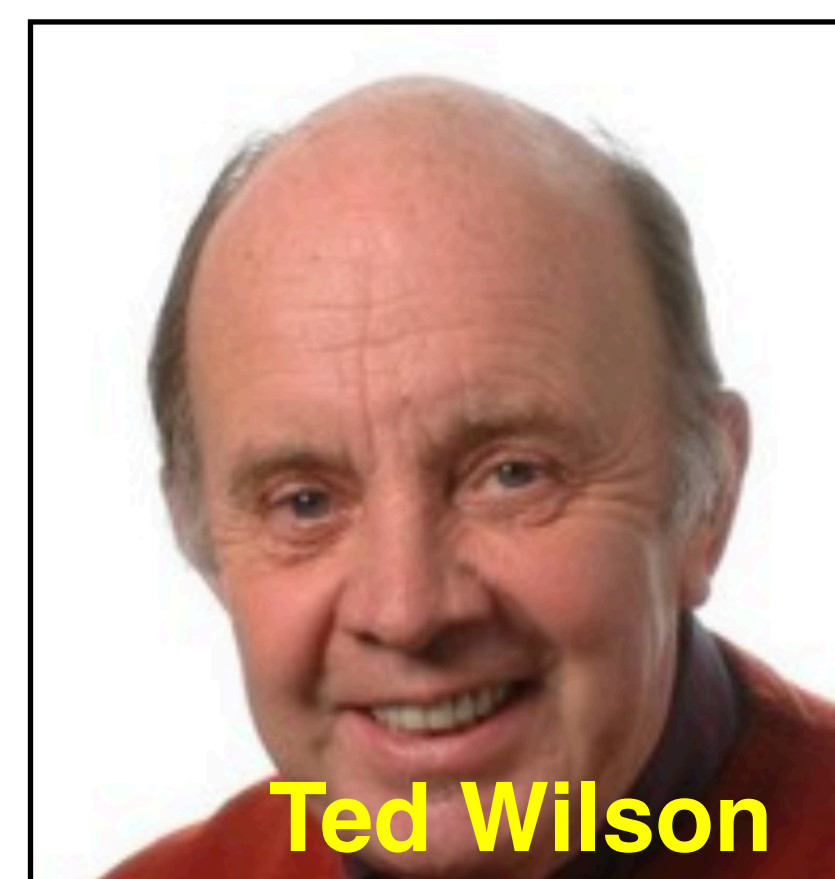
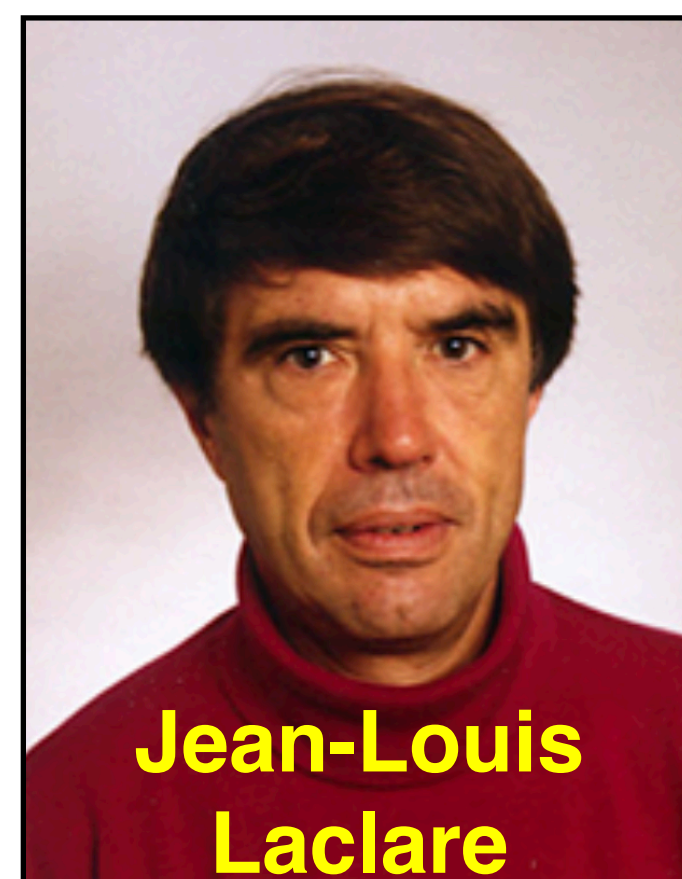
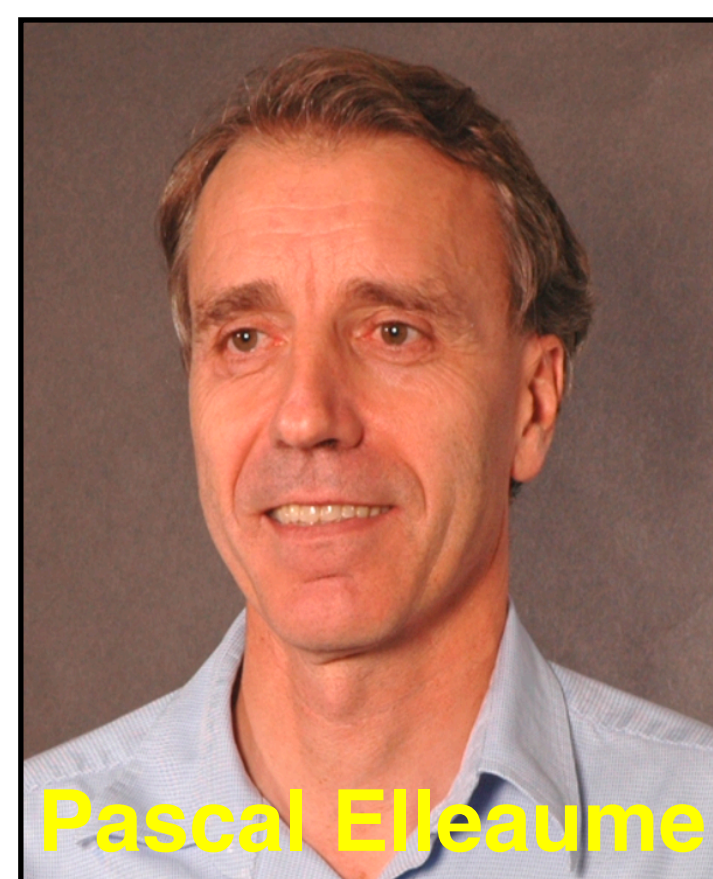
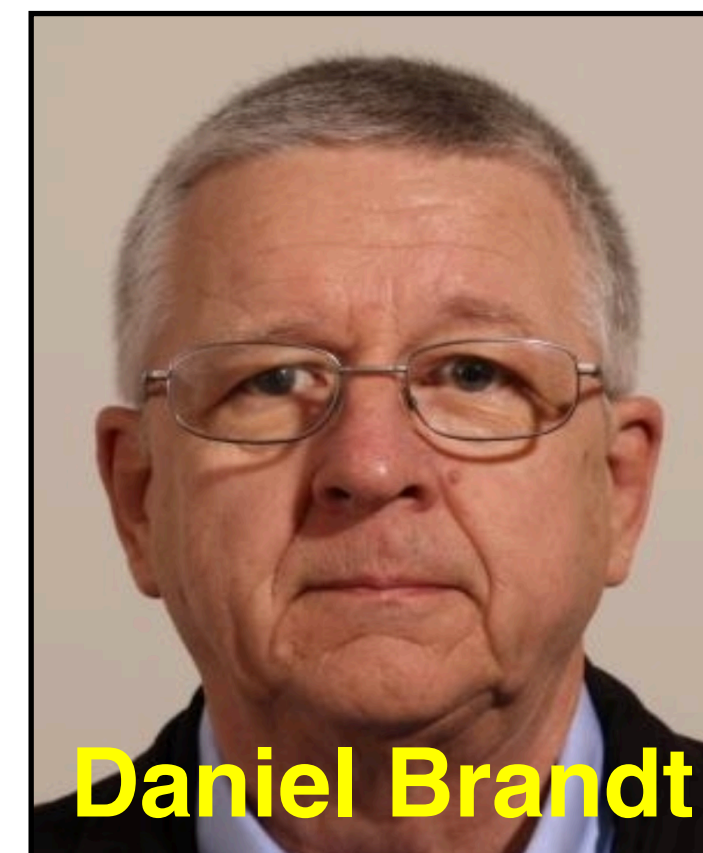
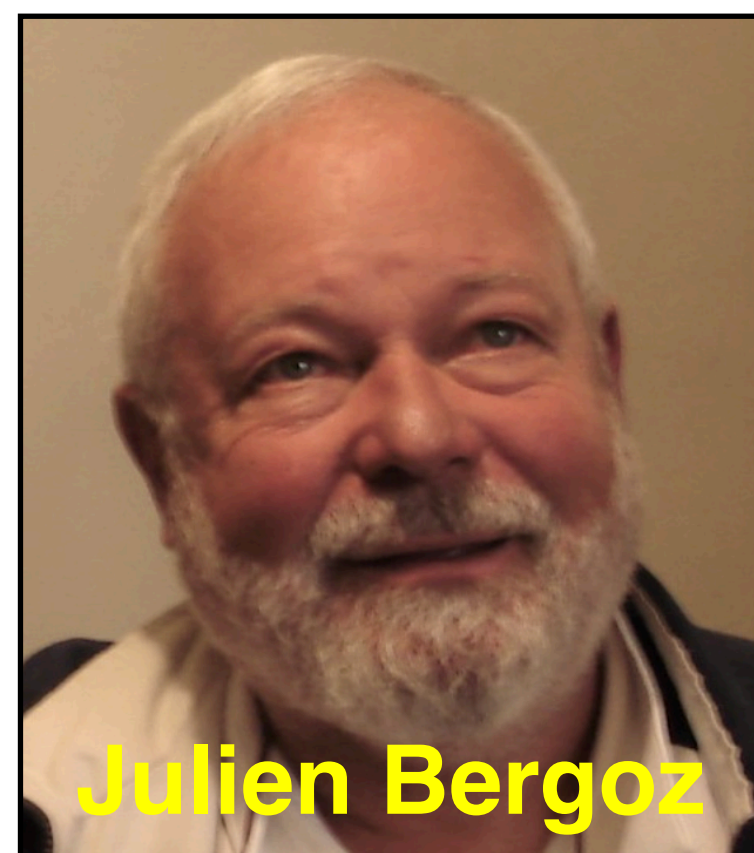
We would like to show our deep gratitude by honouring Robert Lionel Holland, the esteemed director of ESI, whose exceptional leadership and steadfast support have been crucial to the success of the JUAS school. His dedication, enthusiasm, and commitment to excellence have been instrumental in fostering an environment where our educational programme has thrived and expanded. This award acknowledges his invaluable contributions and crucial support, both of which have been fundamental in allowing the transformation of JUAS into the prestigious institution it is today.

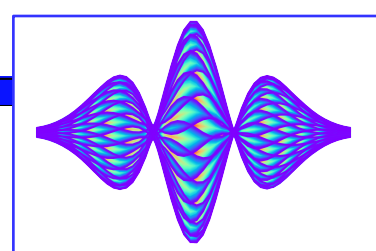
Jean-Michel THENARD
President of European
Scientific Institute

Elias METRAL
Director of Joint Universities
Accelerator School

Mike LAMONT
Director of Accelerators and
Technology at CERN

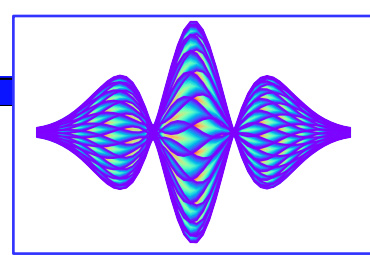
27/11/2024





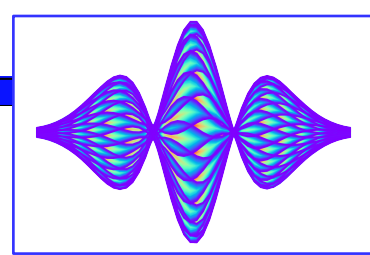
Needs for Trained Personnel in Accelerator Science in Europe





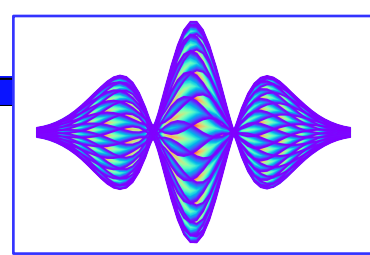
in Accelerator Science in Europe

- ◆ Survey done by **TIARA** (EU programme, 2011-2015)
=> Highlighted the need for more training opportunities targeting undergraduate-level students



in Accelerator Science in Europe

- ◆ Survey done by **TIARA** (EU programme, 2011-2015)
=> Highlighted the need for more training opportunities targeting undergraduate-level students
- ◆ Need was addressed by **ARIES** (EU programme)
=> Preparation of a **MOOC** (Massive Open Online Course) on particle accelerator science and engineering => Used as **pre-requisite for JUAS**



Needs for Trained Personnel in Accelerator Science in Europe



- ◆ Survey done by **TIARA** (EU programme, 2011-2015)
=> Highlighted the need for more training opportunities targeting undergraduate-level students
- ◆ Need was addressed by **ARIES** (EU programme)
=> Preparation of a **MOOC** (Massive Open Online Course) on particle accelerator science and engineering => Used as **pre-requisite for JUAS**
- ◆ Need was also addressed by **I.FAST** (EU programme)
=> Four **10-day challenges at ESI** on particle accelerators for the environment (2022-2023) and healthcare (2024-25)

Accelerator Science Education and Schools

E. Métral (20 min)
(CERN BE/ABP-HSC &
deputy director – and former student – of the JUAS school)

=> On behalf of the team

P. Lebrun and L. Rinolfi (current and previous JUAS directors)

H. Schmickler (current CAS director – deputy director: W. Herr)

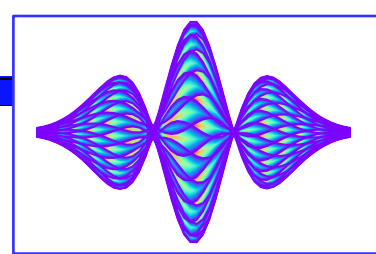
P. Burrows (Work Package 2 leader in European project ARIES)

N. Delerue (Task Leader 2.4 in European project ARIES)

Many thanks to G. Arduini and universities' contacts (see Appendix)

- ◆ **If Europe wants to prepare well for its future collider projects, education and training in accelerator science are crucial**
- ◆ **Are we ready to educate the new generations of accelerator scientists?**

=> Yes!



JUAS & CAS: 2 complementary schools in Europe

2 complementary schools in Europe

JUAS

- ◆ <https://esi-archamps.eu/juas-presentation/>
- ◆ 2 consecutive five-week courses every year (from January to March)
- ◆ **Money is coming from inscription fees and sponsors**
- ◆ Similar (up to date) curriculum every year
- ◆ At ESI (except in 2025 at CERN)
- ◆ **Exams (with possible ECTS credits)**
- ◆ Started in 1994
- ◆ 1 proceeding: JUAS-2024 book
- ◆ Between ~ 20 and 80 students per school
=> ~ **1600 students trained**

CAS

- ◆ <https://cas.web.cern.ch/>
- ◆ 4 courses per year - up to 13 days
- ◆ **Money is coming from inscription fees and CERN**
- ◆ Basic, Introductory or Advanced, and topical
- ◆ In different (Associate) Member States of CERN
- ◆ **No exams**
- ◆ Started in 1983
- ◆ > 70 proceedings (+ a few more in the pipeline), all lectures filmed since 2021
- ◆ Between ~ 70 and 120 students per school (~ 300 per year) => > **8000 students trained**

2 complementary schools in Europe

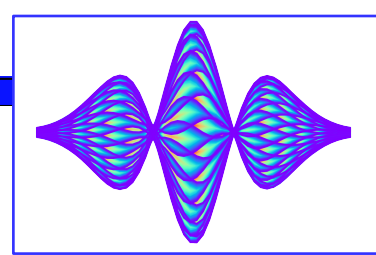
JUAS

- ◆ <https://esi-archamps.eu/juas-presentation/>
- ◆ 2 consecutive five-week courses every year (from January to March)
- ◆ **Money is coming from inscription fees and sponsors**
- ◆ Similar (up to date) curriculum every year
- ◆ At ESI (except in 2025 at CERN)
- ◆ **Exams (with possible ECTS credits)**
- ◆ Started in 1994
- ◆ 1 proceeding: JUAS-2024 book
- ◆ Between ~ 20 and 80 students per school
=> ~ **1600 students trained**

Ongoing discussions
with R. Ischebeck, A. Oeftiger et
al. to rethink JUAS (and its
exams) in the age of AI

CAS

- ◆ <https://cas.web.cern.ch/>
- ◆ 4 courses per year - up to 13 days
- ◆ **Money is coming from inscription fees and CERN**
- ◆ Basic, Introductory or Advanced, and topical
- ◆ In different (Associate) Member States of CERN
- ◆ **No exams**
- ◆ Started in 1983
- ◆ > 70 proceedings (+ a few more in the pipeline), all lectures filmed since 2021
- ◆ Between ~ 70 and 120 students per school (~ 300 per year) => > **8000 students trained**



2 complementary schools in Europe

JUAS

CAS

- ◆ <https://esi-archamps.eu/juas-presentation/>
- ◆ 2 consecutive five-week courses every year (from January to March)

◆ **Money is coming from inscription fees and sponsors**

◆ Similar (up to date) to CAS

◆ At ESI (except in 2021)

◆ **Exams (with possible oral)**

◆ Started in 1994

◆ 1 proceeding: JUAS

◆ Between ~ 20 and 30 students per school

=> ~ 1600 students trained

Ongoing discussions with R. Ischebeck, A. Oeftiger et al. to rethink JUAS (and its exams) in the age of AI

- ◆ <https://cas.web.cern.ch/>
- ◆ 4 courses every year (10-15 days)

◆ **no inscription fees and**

◆ **no oral exams**, and topical

◆ **Member States of CERN**

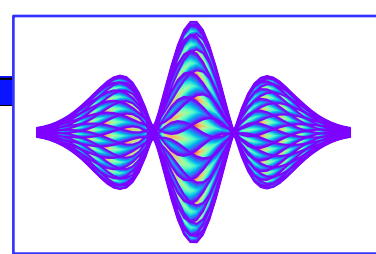
**ACCELERATOR DESIGN EDUCATIONAL PRIMER -
CONCEPTUALIZING AND OPTIMIZING THE HYBRID LHEC-LIKE
ELECTRON-ION COLLIDER DESIGN* IPAC26 paper**

A. Seryi†, L. van Riesen-Haupt, Old Dominion University, A. Formenti, A. Huebl, R. Lehe, Ch. Mitchell, Ji Qiang, J.-L. Vay, E. Zoni, Lawrence Berkeley National Laboratory, United States
C. A. Lindström, Department of Physics, University of Oslo, Oslo, Norway
T. Pieloni, L. Vanhecke, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland

◆ started in 1983

◆ > 70 proceedings (+ a few more in the pipeline), all lectures filmed since 2021

◆ Between ~ 70 and 120 students per school (~ 300 per year) => **> 8000 students trained**



JUAS & CAS:



2 complementary schools in Europe

JUAS

CAS

- ◆ <https://esi-archamps.eu/juas-presentation/>
- ◆ 2 consecutive five-week courses every year (from January to March)

◆ **Money is coming from inscription fees and sponsors**

◆ Similar (up to date) to CAS

◆ At ESI (except in 2021)

◆ **Exams (with possible oral)**

◆ Started in 1994

◆ 1 proceeding: JUAS

◆ Between ~ 20 and 30 students per school

=> ~ 1600 students trained

Ongoing discussions with R. Ischebeck, A. Oeftiger et al. to rethink JUAS (and its exams) in the age of AI

- ◆ <https://cas.web.cern.ch/>
- ◆ 4 courses every year (10 days)

◆ **no inscription fees and no sponsors**

◆ Similar (up to date) to JUAS

◆ At CERN (Member States of CERN)

ACCELERATOR DESIGN EDUCATIONAL PRIMER - CONCEPTUALIZING AND OPTIMIZING THE HYBRID LHEC-LIKE ELECTRON-ION COLLIDER DESIGN* IPAC26 paper

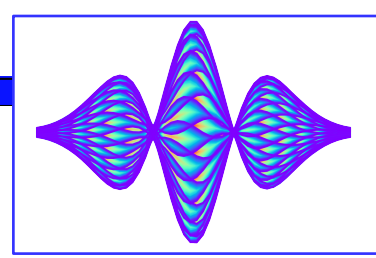
A. Seryi†, L. van Riesen-Haupt, Old Dominion University, A. Formenti, A. Huebl, R. Lehe, Ch. Mitchell, Ji Qiang, J.-L. Vay, E. Zoni, Lawrence Berkeley National Laboratory, United States
 C. A. Lindström, Department of Physics, University of Oslo, Oslo, Norway
 T. Pieloni, L. Vanhecke, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland

◆ Started in 1983

◆ > 70 proceedings (+ a few more in the pipeline), all lectures filmed since 2021

◆ Between ~ 70 and 120 students per school (~ 300 per year) => **> 8000 students trained**

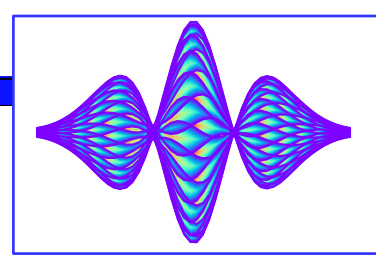
Collaborations were established between JUAS and CAS: common booklet on nomenclature and formulae (F. Méot and D. Brandt); cross-participation of both directors in the respective advisory bodies (L. Rinolfi and R. Bailey; P. Lebrun and H. Schmickler; E. Métral and F. Tecker); etc.



Acknowledgements



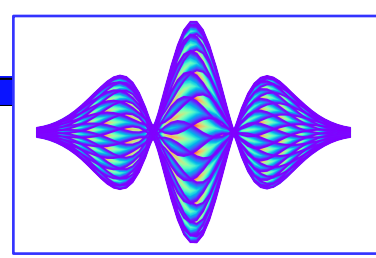
- ◆ My sincere thanks to **CERN management** for giving me the opportunity to serve as Director of JUAS



Acknowledgements



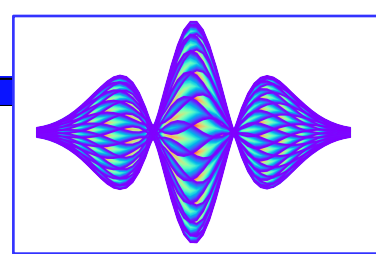
- ◆ My sincere thanks to **CERN management** for giving me the opportunity to serve as Director of JUAS
- ◆ All this would not have been possible without the great



Acknowledgements



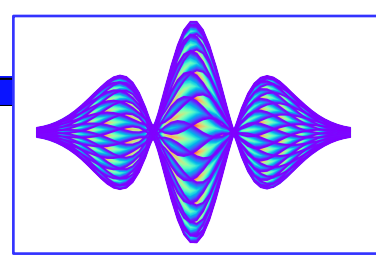
- ◆ My sincere thanks to **CERN management** for giving me the opportunity to serve as Director of JUAS
- ◆ All this would not have been possible without the great
 - ✦ Team work with the **JUAS team** at ESI and all the **faculty members**



Acknowledgements



- ◆ My sincere thanks to **CERN management** for giving me the opportunity to serve as Director of JUAS
- ◆ All this would not have been possible without the great
 - ✦ Team work with the **JUAS team** at ESI and all the **faculty members**
 - ✦ Advices from the **members of Advisory Board**



Acknowledgements



- ◆ My sincere thanks to **CERN management** for giving me the opportunity to serve as Director of JUAS
- ◆ All this would not have been possible without the great
 - ✦ Team work with the **JUAS team** at ESI and all the **faculty members**
 - ✦ Advices from the **members of Advisory Board**
 - ✦ Support from **all our sponsors**

Thank you all for your attention!

The JUAS Team at your service



**Elias
METRAL**

CERN

Principal Accelerator
Physicist



Director



**Florence
MOUTHON**

ESI

Director



Management



**Darina
BAIZHANOVA**

ESI

Project
Manager



Coordinator



**Grace
RODRIGUES**

ESI

Accounting Project
Manager



**JOINT UNIVERSITIES
ACCELERATORS SCHOOL**

POSTGRADUATE EDUCATION IN THE SCIENCE AND
TECHNOLOGY OF PARTICLE ACCELERATORS

COURSE 1
THE SCIENCE OF
PARTICLE ACCELERATORS
11 January - 12 February 2027



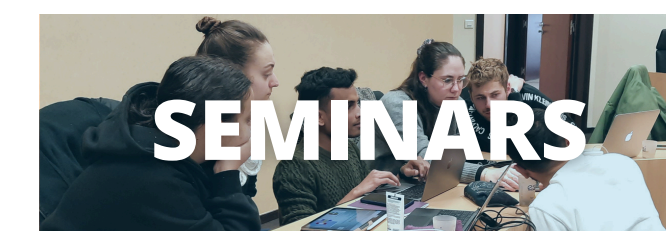
COURSE 2
TECHNOLOGY & APPLICATIONS
OF PARTICLE ACCELERATORS
15 February - 19 March 2027



LECTURES



WORKSHOPS



SEMINARS



VISITS

PARTNER UNIVERSITIES



WITH THE SUPPORT OF

