

WG14 and Education in Accelerator Science

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International Accelerator School (IAS) -background

- The precursor of the IAS is the Joint Accelerator School (JAS). 4 institutes/labs being concerned with the organization, CAS, USPAS, JINR, KEK.
- The initiative for new events is left open and consequently in the history of the JAS the intervals between courses are irregular.
- Mark Boland (Canadian Light Sources, CLS) entered for the 2021 issue (now 2022 due to Covid) and has support from TRIUMF.
Suzie Sheehy has announced interest for 2024 to organize a course in Melbourne. During the discussions the JAS was rebaptized IAS.
- During 2019 Hermann Schmickler (CAS) made the IAS known to ICFA and in order to obtain an ICFA sponsorship of about 20000 Dollars/ course.
This ICFA sponsorship would have to be approved through presentations in committee meetings, but Covid and other issues scrambled things that this never happened.

JAS History



Past Programs			
Year	Location	Program Details	School Proceedings
2019	Dubna, Russia	Ion Colliders	Poster Time Table
2017	Hayama-machi, Japan	RF Technologies	
2014	Newport Beach, California, USA	Beam Loss and Accelerator Protection	"Beam Loss and Accelerator Protection", CERN Yellow Report (2016) ISBN 978-92-9083-426-7 (paperback), ISBN 978-92-9083-427-4 (PDF) Lectures
2013	Shizuoka, Japan	Introduction to Particle Accelerators (regional session)	Photos
2011	Erice, Sicily, Italy	Synchrotron Radiation and Free Electron Lasers	Lectures Student Presentations
2002	Long Beach, California, USA	Frontiers of Accelerator Technology in Linacs	"Linear Accelerators" edited by H. Wiedemann, D. Brandt, E. Perevedentsev and S.I. Kurokawa World Scientific, 2004) ISBN 981-238-463-4
2000	St. Petersburg, Russia	Frontiers of Accelerator Technology: High Quality Beams	"High Quality Beams" edited by S.I. Kurokawa, S.Y. Lee, J. Miles and E. Perevedentsev (AIP, 2001) ISBN 0-7354-0034-2
1998**	Montreux, Switzerland	Beam Measurement	"Beam Measurements" edited by S.I. Kurokawa, S.Y. Lee, E. Perevedentsev, S. Turner (World Scientific, 1999) ISBN 981-02-3881-9
1996	Hayama-machi, Japan	Frontiers of Accelerator Technology: RF Engineering for Particle Accelerators	"Frontiers of Accelerator Technology" edited by S.I. Kurokawa, M. Month and S. Turner (World Scientific, 1999) ISBN 981-0203838-X
1994*	Maui, Hawaii, USA	Frontiers of Accelerator Technology	"Frontiers of Accelerator Technology" edited by S.I. Kurokawa, M. Month, and S. Turner (World Scientific, 1996) ISBN 981-02-2537-7
1992	Benalmadena, Spain	Frontiers of Particle Beams: Factories with e+e- Rings	Lecture Notes in Physics No. 425 Springer-Verlag
1990	Hilton Head, South Carolina, USA	Frontiers of Particle Beams: Intensity Limitations	Lecture Notes in Physics No. 400 Springer-Verlag
1988	Anacapri, Italy	Frontiers of Particle Beams: Observation, Diagnosis and Correction	Lecture Notes in Physics No. 343 Springer-Verlag
1986	South Padre Island, Texas, USA	Frontiers of Particle Beams	Lecture Notes in Physics No. 296 Springer-Verlag
1985	Santa Margherita di Pula, Sardinia	Nonlinear Dynamics	Lecture Notes in Physics No. 247 Springer-Verlag
* becomes the US-CERN-Japan International Accelerator School			
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- <https://uspas.fnal.gov/programs/JAS/index.shtml>
- Boland has been approached in 2017 and 2019 by colleagues in JAS to make a proposal (unsuccessful attempt made in 2011 to host a JAS in Australia).
- Canada (CLS and TRIUMF) included as part of a push for a new International Accelerator School (IAS) transition promoted by CERN.
- No past program specifically on Superconductivity (SC) and SC-technology.
→ picked up by Boland and Kester



IAS 2022, Saskatoon, Canada

July 11-21, 2022



- School on superconducting technology in accelerators – inc. RF, magnets, ancillary engineering systems.
- Aimed at postgraduate MSc, PhD, and staff scientists and engineers.
- Motivated by Canadian activities; HL-LHC upgrade, ARIEL at TRIUMF, SRF at CLS, Fundamental SRF research at University of Victoria and TRIUMF and international collaborations.
- Located on the campus of University of Saskatchewan with tours of CLS SRF and SC magnet facility.
- July 2022 to fit in between USPAS usually June and CAS usually Aug/Sep.

IUPAP WG14 and IAS - discussion

- The IAS has no governance structure; therefore the steady evolution is slow.
Its not intended to have IAS as a competition, but an extension of CAS, USPAS and other education activities
→ a memorandum from Bill Barletta about the intention of IAS exists
- The IAS would be idea to support students from countries that have not sufficient resources to send students abroad – sponsorship
- WG14 to connect with ICFA chair Stuart Henderson and discuss governance of ISAS and potential financial support for students
- Any support from IUPAP possible? Governance, financial