

2019 JAI Advisory Board Meeting

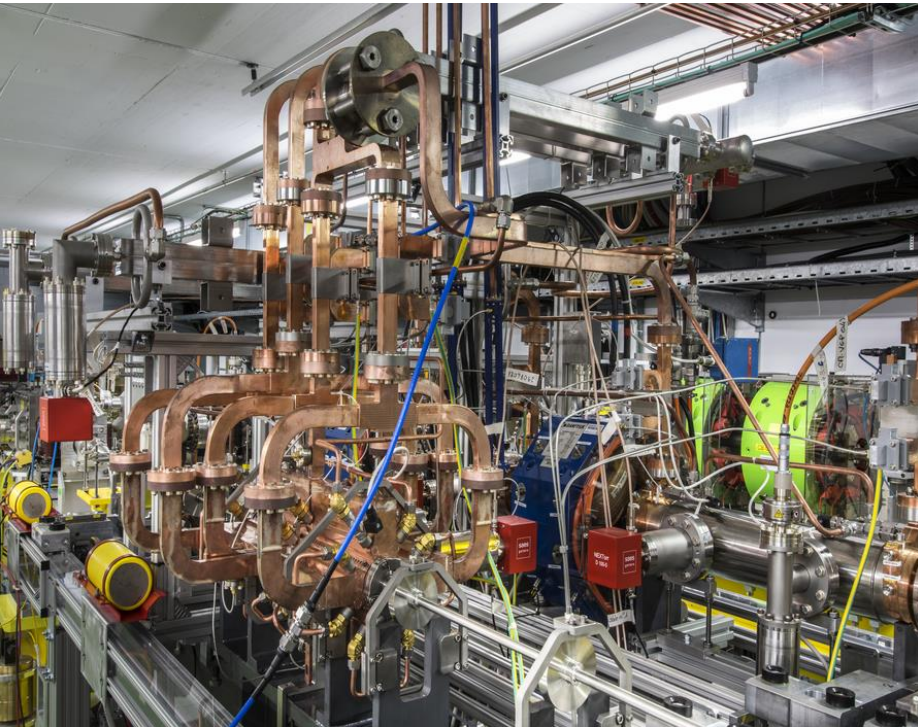
Philip Burrows

Oxford University

Interim Director, John Adams Institute



John Adams Institute



A centre of excellence for advanced and novel accelerator technology, providing expertise, research, development and training in accelerator techniques, and promoting advanced accelerator applications in science and society

John Adams Institute

Oxford University, Royal Holloway, Imperial College

**One of two UK national academic centres of excellence in
accelerator science, set up in 2004**

22 faculty

30 staff

37 PhD students

**Research projects at: CERN, DESY, KEK, Daresbury,
Diamond, ISIS, CLF ...**

Comprehensive PhD training programme

JAI faculty

Royal Holloway:

Stewart Boogert, Stephen Gibson, Pavel Karataev

Imperial College:

Zulfikar Najmudin, Stewart Mangles, Steven Rose, Bucker Dangor

Oxford:

Riccardo Bartolini, Philip Burrows, Brian Foster, Simon Hooker,

Ivan Konoplev, Peter Norreys, Armin Reichold, Suzie Sheehy,

Frank Van Den Heuvel, Roman Walczak

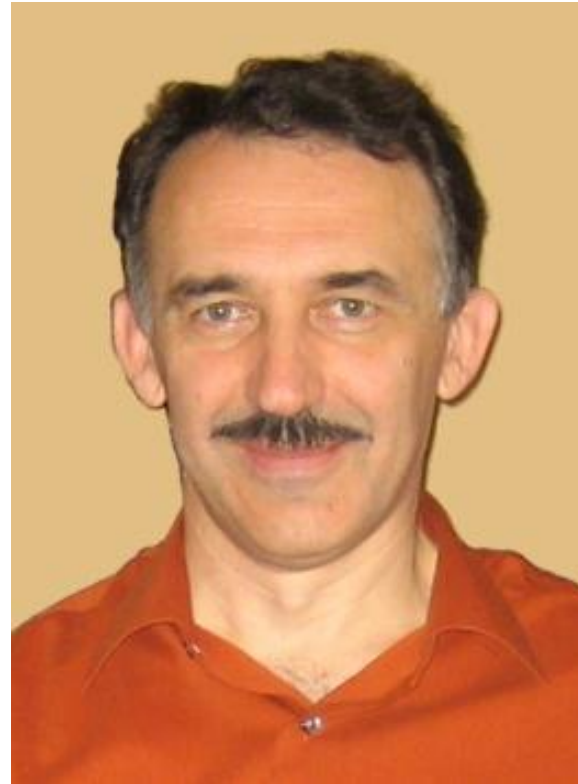
Visiting Professors: Manjit Dosanh, Oliver Heid, Emmanuel Tsesmelis

Emeritus: George Doucas, Ken Peach

Thanks and congratulations!

Andrei Seryi

**Appointed
Director of
Accelerator
Division at JLab**



Congratulations!

Riccardo Bartolini

**Appointed
Technical
Director
of SESAME**



Congratulations!

Suzie Sheehy

**Appointed to
faculty post in
Physics Dept at
Melbourne
University**



Congratulations!

Stewart Boogert

**To become
Head of Engineering,
Physical and
Mathematical Sciences
at RHUL**



Welcome!

Manjit Dosanh

**Appointed
Visiting Professor
In Physics Dept at
JAI Oxford University**



JAI staff

Imperial College:

Saleh Alatabi, Rory Baggott, Ollie Ettliger, George Hicks, Brendan Kettle, Zhi Qiao, Matthew Streeter, Jonathan Wood

Oxford:

Douglas Bett, Ryan Bodenstein, Paul Coe, Emilia Cruz Alaniz, Jose Abelleira Fernandez, James Holloway, Mark Jones, Colin Perry M. Korostelev, Emi Yamakawa

Royal Holloway:

Alberto Arteche, Paul Bamford, Gary Boorman, Alessio Bosco, Richard Elsom, Robert Kieffer, Konstantin Lekomsev, Alexey Lyapin, Laurie Nevay, Hector Garcia Morales, Markus Palm, William Shields

Congratulations!

Jose Abelleira Fernandez

**Awarded an
ASI Data Science
Fellowship**



Congratulations!

Emilia Cruz Alaniz

**Awarded
Research Associateship
at Cockcroft Institute**



Congratulations!

Ryan Bodenstein

**Awarded staff post at
MYRRHA**



Welcome!

Emi Yamakawa

**Research Associate
on ISIS**



Welcome!

Hector Garcia Morales

**Research Associate
on HL LHC**



JAI students

Oxford:

Luke Dyks, Chetan Gohil, Jakob Jonnerby, Pierre Korysko, Ji Li, Lucy Martin, Jan Paszkiewicz, Alexander Picksley, David Posthuma de Boer, Rebecca Ramjiawan, Aimee Ross, Eugenio Senes, Leon Van Riesenhaupt, Robert Williamson

Imperial College:

Savio Rosario, Elias Gertschmayer, Emma-Jane Ditter, Jan-Niclas Gruse, Robbie Watt, Cary Colgan, Michael Backhouse, Eva Loss, Wei Wu

Royal Holloway:

Stuart Walker, Swann Levesseur, Sophie Bashforth, Helena Pikhartova, Gian Luigi D'Alessandro, Siobhan Alden, Andrey Abramov, Theodoros Christodoulou, Michele Bergamaschi, Tom Vaughan, Niki Vitoratou, Andrei Olenik, Kirill Fedorov, Daniel Harryman

Congratulations on completing PhD!

Alberto Arteche → HL-LHC RA

Michele Bergamaschi

Christopher Arran

Talitha Bromwich

Hannah Harrison

Robert Shalloo → LPWA RA

Huibo Zhang

Congratulations!

Awarded CERN Fellowships:

Leon Van Riesenhaupt



Swann Levasseur



Welcome – class of 2018!

Luke Dyks

(CLIC/CLEAR)

David Posthuma de Boer

(ISIS)

Aimee Ross

(PWFA)

Daniel Harryman

(Cerenkov DR)

Siobhan Alden

(FETS)

GianLuigi d'Alessandro

(CERN PS beamline)

Eva Los

(LWFA)

Michael Backhouse

(LWFA)

Yuxuan Cai

(ion accel)

JAI PhD studentships

3 STFC project studentships awarded 2018

To start October 2019:

3 STFC quota studentships

1 studentship supported by ISIS

2 Royal Society studentships (Suzie)

1 CASE studentship (Ivan)

2 CERN doctoral studentship (Phil, Stephen)

+ ISIS part-time, JLab, ...

JAI www site - then



John Adams Institute for Accelerator Science

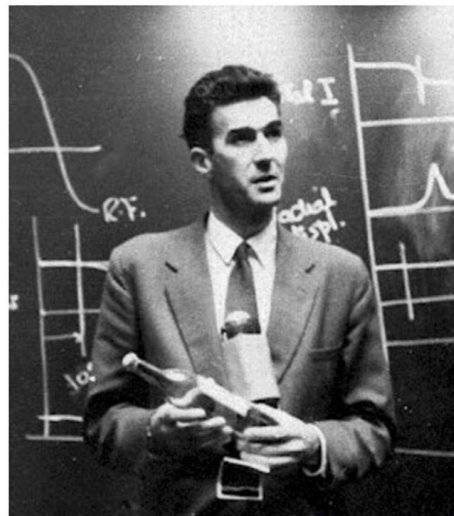
Centre of excellence in the UK for advanced and novel accelerator technology

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About the John Adams Institute

The John Adams Institute for Accelerator Science is a centre of excellence in the UK for advanced and novel accelerator technology, providing expertise, research, development and training in accelerator techniques, and promoting advanced accelerator applications in science and society.



Latest news

Posted: 15/03/2018 - 15:04



[Continuity of Successful Operation of JAI](#)

Posted: 02/11/2017 - 10:34



[Accelerate! show at the Curiosity Carnival](#)

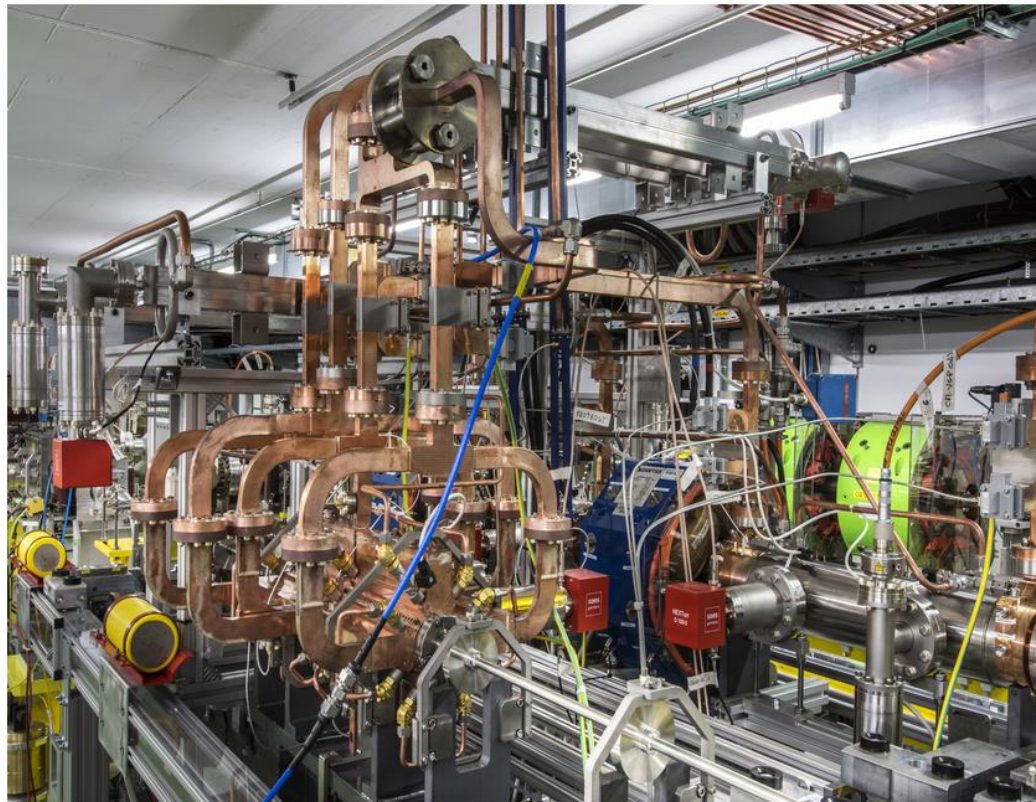
JAI www site - now

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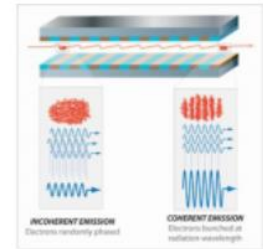
Latest news

Posted: 01/03/2019 - 17:49



JAI science: Xbox at CERN

Posted: 01/03/2019 - 17:30



March Lectures

Posted: 19/02/2019 - 12:05



February Lectures

The new www team

www coordinator: Lucy Martin



Content team:

Alex Picksley (Oxford)

Siobhan Alden (RHUL)

George Hicks (IC)



Please contact the team with news, stories, events, publications ...

John Adams Agreement

JOHN ADAMS INSTITUTE AGREEMENT

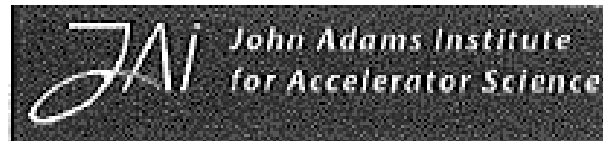
Between

The Chancellor, Masters, and Scholars of the University of Oxford

Royal Holloway and Bedford New College

And

Imperial College of Science, Technology and Medicine



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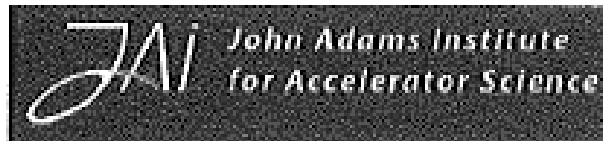
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**Updated
by legal
teams**



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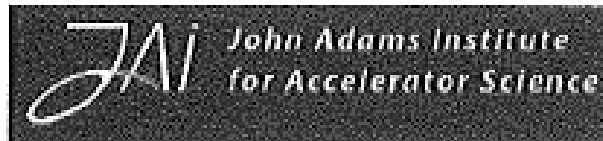
The Chancellor, Masters, and Scholars of the University of Oxford

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And

Imperial College of Science, Technology and Medicine

Signed
5/12/18



JAI research activities

Electron beams:

**Electron-positron linear colliders
Diamond Light Source + future FEL**

Proton beams:

**Large Hadron Collider
Future Circular Collider
Intense hadron beams (ISIS, FETS, IBEX)**

Beam therapy:

Proton, ion, electron

Laser- and beam-driven plasma wakefield acceleration

Advanced accelerator systems:

**Beam instrumentation, feedback + control
RF systems
Metrology/alignment**

Some context

UKRI priorities:

**increasing economic + societal benefit from UK Govt R&D
more scientific + economic return from UK investment in CERN**

**STFC: in 10th year of flat-flat cash in programmes line
conducting a ‘programmatic review’ in 2019**

European Strategy Update (ESU) for particle physics – due early 2020

Global projects with implications for Europe: ILC, CEPC

Faculty strength + pressing need to make appointments (in Oxford)

Next bid to STFC for JAI grant ~ 2020 (?)

JAI opportunities - CERN

Strengthen involvement in LHC / HL LHC:

- 2 Oxford RA posts: LHC BPM upgrade + triplet stabilisation
- Preparing bid to STFC for next phase of HL LHC UK
- faculty hire on pp colliders (LHC, HL LHC, FCCpp)

Involvement in AWAKE Phase 2:

- Oxford PhD student (BPMs) + RA on e- injection line design
- Preparing bid to STFC for AWAKE Phase 2 UK

Involvement with Physics Beyond Colliders:

- 2 JAI CERN Doctoral PhD students on NA beamline projects
- Preparing CDR for eSPS (eg. Dark Matter search experiment)
- faculty hire on 'novel beamlines'?

JAI opportunities – ‘global challenges’

Medical applications:

Existing JAI expertise: Suzie, Ivan, Frank, Stew, Laurie, Will, also Ken L

Manjit’s appointment provides a golden opportunity for closer JAI collaboration with CERN + UK clinical community (eg. Oxford Oncology)

- strengthens STFC accelerator community to bid for relevant UKRI Global Challenges funding
- builds on strong overlap with CLIC: ‘Flash’ therapy @ Lausanne
- builds on industrial connection: TMD brazing CLIC structures
- opportunity for collaboration with Melbourne
- faculty hire on accelerator medical applications?

ILC

MEXT's view in regard to the ILC project
Executive Summary

March 7, 2019
Research Promotion Bureau, MEXT

- Following the opinion of the SCJ, MEXT has not yet reached declaration for hosting the ILC in Japan at this moment. The ILC project requires further discussion in formal academic decision-making processes such as the SCJ Master Plan, where it has to be clarified whether the ILC project can gain understanding and support from the domestic academic community.
- MEXT will pay close attention to the progress of the discussions at the European Strategy for Particle Physics Update.
- The ILC project has certain scientific significance in particle physics particularly in the precision measurements of the Higgs boson, and also has possibility in the technological advancement and in its effect on the local community, although the SCJ pointed out some concerns with the ILC project. Therefore, considering the above points, MEXT will continue to discuss the ILC project with other governments while having an interest in the ILC project.

We look forward to your advice!

**Thanks to our IC colleagues for
hosting us!**