

AEC Status and Plans

Gilberto Colangelo
AEC plenary meeting, 3.9.2019



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**UNIVERSITÄT
BERN**

AEC
ALBERT EINSTEIN CENTER
FOR FUNDAMENTAL PHYSICS

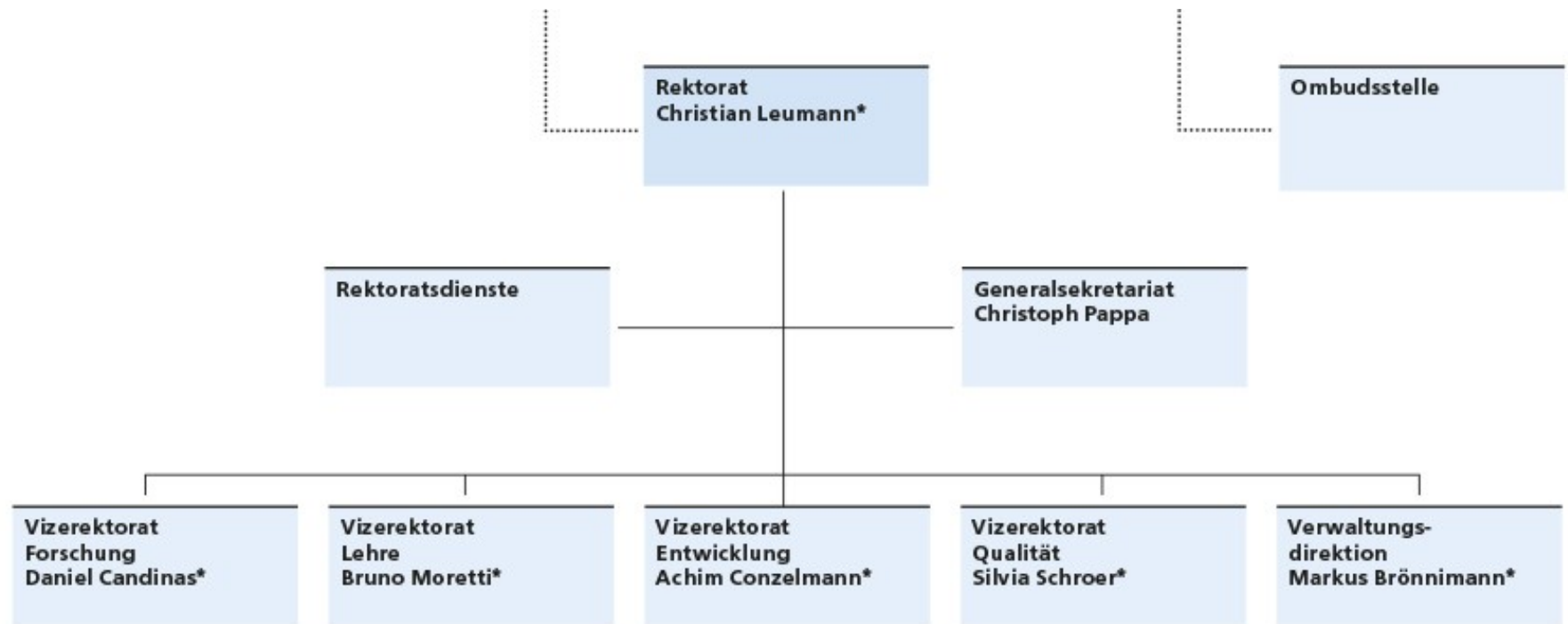
AEC International Advisory Board

- Poul Damgaard (NBI, Copenhagen)
- Takaaki Kajita (IPMU, Tokyo)
- Peter Jenni (CERN, Geneva)
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- Richard Wigmans (TTU, Texas)
- Giulia Zanderighi (MPI, Munich)

Meeting Program

- 09:45 – 10:15 Antonio Ereditato Experimental activities
- 10:15 – 10:45 Thomas Becher Theory overview
- 10:45 – 11:00 Coffee Break
- 11:00 – 11:30 Stephan Caspar Merons: How to identify the carriers of topological charge
- 11:30 – 12:00 James Sinclair The DUNE, and the Long-Baseline Neutrino Facilities
- 12:00 – 14:15 Lunch
- 14:15 – 14:45 Thomas Teubner $g-2$ of the muon and electron: anomalous anomalies
- 14:45 – 15:15 Konrad Nesteruk New concepts for proton-therapy gantries
- 15:15 – 15:30 Coffee Break
- 15:30 – 16:00 Yuta Sekiguchi Stringy duality and classical integrability
- 16:00 – 16:30 Ivo Schulthess Fundamental neutron physics at low energy
- 16:30 – Aperó

What is a “Center” @unibe?



Fakultäten							
Theologische Fakultät Angela Berlis	Rechtswissenschaftliche Fakultät Peter V. Kunz	Wirtschafts- und Sozialwissenschaftliche Fakultät Artur Baldauf	Medizinische Fakultät Hans-Uwe Simon	Vetsuisse-Fakultät David Spreng	Philosophisch-historische Fakultät Elena Mango	Philosophisch-humanwissenschaftliche Fakultät Ernst Joachim Hossner	Philosophisch-naturwissenschaftliche Fakultät Zoltan Balogh

Faculty of Theology	Homepage Faculty
Faculty of Law	Mathematics, Statistics and Informatics
Faculty of Business, Economics and Social Sciences	Mathematical Institute
Faculty of Medicine	Institute of Mathematical Statistics and Actuarial Science
Vetsuisse Faculty	Institute of Computer Science
Faculty of Humanities	Department of Mathematics and Statistics
Faculty of Human Sciences	Physics and Astronomy
Faculty of Science	Department of Physics and Astronomy
	Astronomical Institute
	Institute of Applied Physics
	Institute for Theoretical Physics
	Physics Institute
	Chemistry and Biochemistry
	Department of Chemistry and Biochemistry
	Department of Biology
	Institute of Cell Biology
	Institute of Ecology and Evolution
	Institute of Plant Sciences
	Interfaculty Bioinformatics Unit
	Geosciences
	Institute of Geological Sciences
	Institute of Geography

What is a “Center” @unibe?

- Centers of competence are horizontal and temporary (4yrs, renewable) structures
- Focused on “problems” rather than on discipline
- *Interdisciplinary* by design
- Unibe currently has 9

Unibe Centers of Competence

- **Albert Einstein Center for Fundamental Physics (AEC)**
- ARTORG Center for Biomedical Engineering Research
- Bern Center for Precision Medicine (BCPM)
- Center for Regional Economic Development (CRED)
- **Center for Space and Habitability (CSH)**
- Centre for Development and Environment CDE
- Kompetenzzentrum für Public Management (KPM)
- **Oeschger Centre for Climate Change Research (OCCR)**
- World Trade Institute (WTI)

AEC

Created in 2011 with the following mission

- Strengthen particle and fundamental physics
- Establish and promote medical applications as well as other interdisciplinary activities
- Promote and exploit synergies between theory and experiment

How do we accomplish our mission?

- Postdoc and PhD students (not linked to SNF projects/grants, more freedom, critical mass)
- Medical physics group (created and supported by AEC)
- AEC seminars (joint th/exp)
- Broad offer of Graduate Courses
- A very successful visitor program
- Support and organization of international workshops and conferences

Goal of this meeting

- The AEC is at the end of its second 4yr-period
- We are currently preparing our self-evaluation and the negotiation of the next AEC 4yr-period
- Reflect on the past 4 yrs, our strengths and weaknesses, and plan –ambitiously– the next 4 yrs

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Thanks

- To all participants to the meeting
- In particular to the IAB members and our invited speaker Thomas Teubner
- Last but not least:
Antonio Ereditato, AEC Director 2011-18