

Welcome and News from KSETA

13 February 2017

Karlsruhe School of Elementary Particle and Astroparticle Physics (KSETA)







- This event is an important tradition of KSETA
- Like a "General Assembly" with all doctoral researchers and all principal investigators
- About 120 participants (out of 150)
- Opportunity for discussion with external speakers, talks and posters by fellows

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3rd KSETA Plenary Workshop 2016

KIT Center Elementaryparticle and Astroparticle Physics (KCETA)





Institute for Experimental Nuclear Physics (IEKP)

Institute for Theoretical Particle Physics (TTP)

Institute for Theoretical Physics (ITP)

Institute for Nuclear Physics (IKP)

Institute for Data Processing and Electronics (IPE)

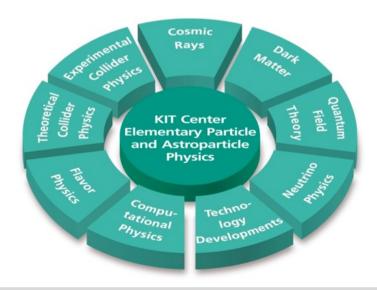
Institute for Technical Physics (ITeP)

Steinbuch Centre for Computing (SCC)
Institute for Micro- and Nanoelectronic Systems (IMS)
Institute for Information Processing Technologies
(ITIV)

Institute for Technical Thermodynamic and Refrigeration (ITTK)

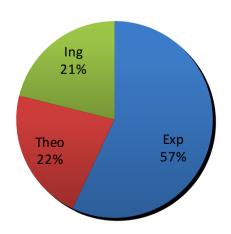
Institute for Accelerator Physics and Technology (IBPT)

- 11 institutes:
- ~ 400 persons
 - 22 professors, 3 young scientist groups
- ~ 40 M€ budget of all projects



Karlsruhe School of Elementary Particle and Astroparticle Physics: Science and Technology (KSETA)

- KSETA is the doctoral school of KCETA
- 42 scientists (principal investigators)
- Funding by the Deutsche Forschungsgemeinschaft (DFG) since November 2012 with 1.5 M€ per year
- ~ 35 doctoral fellows funded through KSETA
- ~ 74 doctoral fellows (KSETA associates) receiving tangible means, courses, workshops





New KSETA Fellows





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Anton Huber

Marco Bonetti

David Gomse David Butler Felix Ehrler

Nikkie Deelen Sebastian Mirz Alvaro Taboada

Markus Prim Nils Braun Johannes Hulsmann

Gaia Silli Karim El Morabit Mridula Prathapan

New KSETA Fellows











Luis Ardila

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Carsten Röttele

Marta Moscati

Christina Weber
Luiz Augusto Stuani Pereira
Alvaro Hernández Cabezudo
Kai Fabian Bindel

Stefan Maier
Bennet Krasch
Kirill Kudashkin
Felix Metzner

Thomas Berger

David Wellmann

Anieszka Leszczynska

Jakob Schwichtenberg



Karlsruher Institut für Technologie

Kerstin Schönung

Michael Karus

Martin Printz; geb. Strelzyk

Geertje Heuermann

Alexander Schulz

Roman Hiller

Cecile Kefelian

Marcel Kraus

Alexander Kurz

Benedikt Maier

Dominik Haitz

Georg Sieber

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Olga Kambeitz

Piotr Skwierawski

Lenka Tomankova

Wolfgang Noll

Sven Schoo

Lukas Hehn

Simone Rupp

Juraj Streicher

Fabio Colombo

Moritz Erhard

Bernhard Siebenborn

Simon Fink

Christian Amstutz

Max Fischer

Hanna Ziesche geb. Hoffmann

Laura Kuckert, geb. Neumann

Matthias Weinreuter

Christoph Bayer

Viktor Trusov

Shawn Williamson

Katrin Link

Michael Ziegler

Hannes Mildner

Anne Zilles

Johannes Grygier

Stefan Heindl



...to their succesful graduation

Some statistics

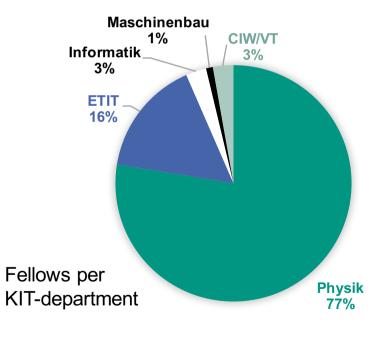
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All KSETA Fellows: 112 (Jan 2016) 109 (Dec. 2016)

Directly paid by KSETA: 33 (Jan. 2016)24 (Dec. 2016)

■ LGF: 12 (Jan. 2016) 11 (Dec. 2016)



International: 37

Female: 25

Principal Investigators: 43

News

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- DFG Funding extended to 2019 full funding in 2018 ramp-down in 2019
- sustained funding (by MWK and KIT) ~ 40% level from 2020 on
- 4 DAAD stipends for foreign PhD students
- Julius Wess Award 2016 for Prof. Robert Klanner (University Hamburg)
 Ceremony on March 3, 2017 (Otto-Lehmann lecture hall)



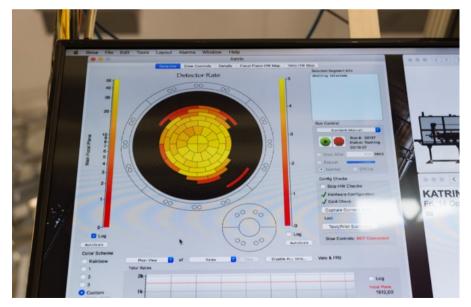
KATRIN first light

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- October 14 first light at KATRIN!
- The important function test of all components was successful
- First measurements with tritium end of this year





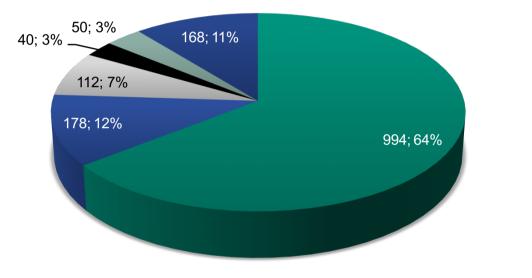


Budget distribution 2016

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Expenses in T€, %



- Doctoral Researchers
- Guests / PostDocs
- Tangible means for Doct.
- Tangible means others
- Courses/Workshops
- Office Staff

Events in 2016

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- Julius Wess Award 2015 to Prof. Lisa Randall (Harvard, USA)
- Ceremony of the presentation: July 8, 2016
- Seminar for KSETA Fellows
 - Ideas about Dark Matter
 - Warped Geometry: consequences and signatures







Doctoral workshop Freudenstadt, July 11-13





- 13 participants
- Discussion of PhD theses in small groups, 5 talks/tutorials, external speaker on scientific writing
- Social event: silver mine
- Overall impressions evaluated with 1.7 (good!)



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Excursion to Double Chooz, September 5-6







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- 18 participants
- Sightseeing stop in Luxembourg
- Guided tour power plant and Double Chooz near detector
- Positive feedback from participants



Guest Scientists

- Prof. Peter Biermann (Univ. Bonn)
 - Dark Matter and Dark Energy
- Prof. Stefan Pokorski (Univ. Warschau)
 - Spontaneous breaking of symmetries in particle physics
- Prof. Alexander Penin

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- Gravitational Waves
- Prof. Vladimir Smirnov (and Roman Lee)
 - Modern Techniques for Multi-Loop Calculations









13. Februar 2017 KSETA Welcome

KSETA Topical Courses



- April 4 15
- 6 Courses (6 hours each)
- DEEPER: 2

BROADER: 8

- September 12 23
- 7 Courses (6 hours each)

■ BETTER: 3

Awards

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"Helmholtz Doktorandenpreis"

- honours scientific achievements of PhD thesis
- only six prizes nation wide, one per Helmholtz research area.
- comprises research stay at international research institution.
- research area "Matter": KSETA alumni won the prize in 2015 and 2016



- Benjamin Schmidt (IEKP): "Suche nach dunkler Materie mithilfe kryogener Ge-Detektoren mit neuartiger Datenauslese"
- Wolfgang Gregor Hollik (TTP): "Neutrinos meet supersymmetry: Quantum Aspects of Neutrino Physics in Supersymmetric Theories"

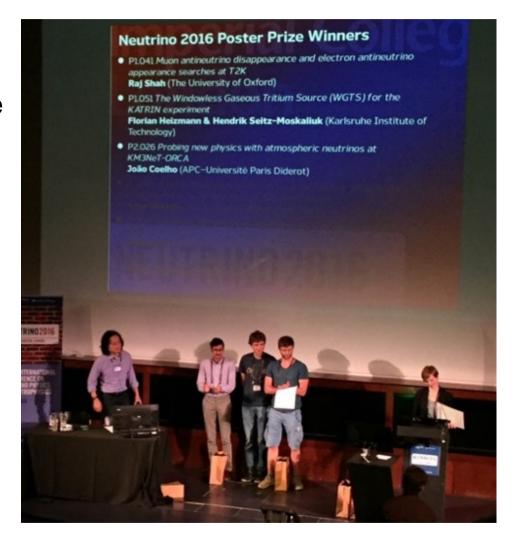


Awards

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Florian Heizmann won poster awards at the NEUTRINO2016 conference in London and at the "Matter and Universe" Day in Mainz.



Double-degree program with UNSAM at work



Alternating lectures:

At KIT

- **Neutrino Astrophysics** Esteban Roulet
- **Statistical Methods for Astroparticle Physics** Sylvia Mollerach

At UNSAM:

Particle Physics at Colliders Dieter Zeppenfeld

Prof. Gustavo Romero (UNSAM) received the Helmholtz International Fellow Award, which comprises funds for research stays at a Helmholtz center.





Ewa H.



Nico G.



Sarah M.



Ana B.



David S.



Johan H.



Álvaro T.



Gaia S.



Ana M.



Matías P.



Representatives' activities







About KSETA

Organisation

Research Topics

KSETA Doctoral Fellows

List of Fellows

TANDEM Program

Information and forms

- Application
- Training Program

Research Training Group

Double Doctoral Degree KIT - UNSAM

Equal Opportunities

- News
- ▶ Events

Partner Organisations

Willkommen beim KSETA TANDEM-Programm

What is it all about?

The KSETA TANDEM program is a mentoring program from experienced KSETA fellows for new KSETA PhDs being internationals or just new to Karlsruhe. The idea is to provide the new fellows with an experienced partner who can show them the city of Karlsruhe (KIT campus, places for shopping,...) or help them where the German language might be a barrier (e.g. official visits at authorities).



How does it work?

Are you new to KSETA and Karlsruhe? Do you want to get to know the KIT, the city and meet new friends? Or do you need any help concerning the procedure of your doctorate?

Just scan through the List of Mentors down below. Here you find a short introduction of each mentor. Do not hesitate to contact the one you feel the most comfortable with. After the first contact is made, there is no strict schedule how the relation between mentee and mentor should be structured. It is up to the individual TANDEM to decide what is needed the most. Is it just a visit to the local cinema or an appointment at the citizen office.. you name it!

Are you an experienced KESTA fellow and want to join the TANDEM program as a mentor?

Just send an E-mail to andreas pargner8kit edu and we provide you with further information.

List of Mentors

By clicking on the names you'll get to the mentors KSETA Fellow page. There you can find their E-Mail address.

Andreas Pargner 🛭



"Hi, my name is Andreas. I grew up in a small suburb of Karlsruhe and moved to the city for studying physics at KIT in 2009. So, you can bet that I know Karlsruhe by heart. I can show you everything from the Wildpark soccer stadium over the KIT campus and up to the Kaiserstrasse with all its shopping malls. And there is a lot more to see and experience... I'm looking forward to it!"

Simon Niemes 2



"Hey there, my name is Simon and I have been in Karlsruhe for way too long! Hence I know the city, the surroundings and local (pub) culture fairly well and I am more than happy to help you discover the area and get started with KSETA.
:-)"

Genessis Perez ☑



"Hi, my name is Genessis and I'm a KSETA fellow since July 2014. I'm an international student (I'm from Venezuela), so I can help you with some useful information, like how to survive as an "Alien" in Deutschland . I'm also a rock climber and we have some sort of climbing group with another friends fellows, so if you are interested in going

Tandem programme launched

- Fellows help new fellows (especially from abroad) with German bureaucracy, show them Karlsruhe and the university
- Five fellows volunteered (4 male/1 female)
- Implemented in KSETA welcome guide soon

Please advertise TANDEM in your research group!

KSETA benefits



As a KSETA Fellow you benefit from....

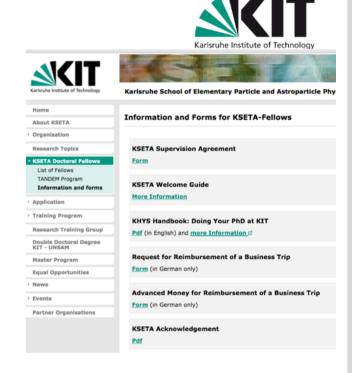
- training program with topical courses, special lectures, workshops, guest scientists,
- budget for conference travel and equipment,
- research environment with 109 Doctoral Fellows (Dec. 2016)
- → 22% of you are financed from KSETA sources (including LGF stipends),
- possibility of a short-term postdoc grant after graduation.

KSETA Fellows – rights and duties

For your rights and duties please consult the KSETA Welcome Guide.

Important duties:

- attend a minimum number of 6 courses during your 3-year PhD studies,
- write your annual report,
- keep your personal web page up-to-date,
- list your publications in the files publicationsreviewed.bib and publications-UNreviewed.bib.
- → We have reporting duties towards our funding agencies and must list the publications.



Don't delete KSETA emails without reading



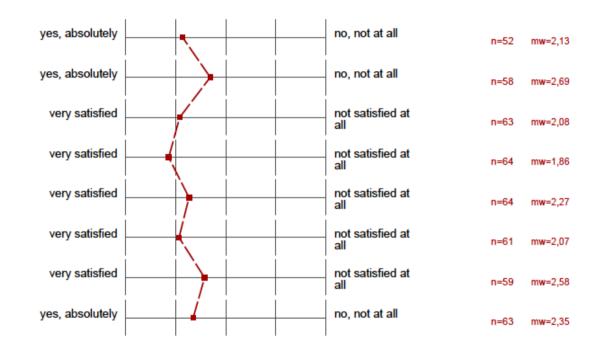
KSETA Evaluation 2016



66 participants

2. Supervision and support

- 2.2) My supervisor supports research visits abroad (Three months and more).
- 2.3) Within the framework of my Ph.D., regular work plans are negotiated.
- 2.4) How satisfied are you with your supervision?
- 2.5) Scientific support
- 2.6) Duration and frequency
- ^{2.7)} Encouragement, motivation
- 2.8) Career considerations
- 2.9) My supervisor informs me sufficiently about possibilities of financing trips or purchases by KSETA.



4. Miscelaneous

- 4.4) Would you recommend students to take part in KSETA?
- 4.6) Thinking of KSETA, I am...

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