

KHuK Annual Meeting, 8-10 Dec. 2022

Report from KAT

Kathrin Valerius Karlsruhe Institute of Technology



Outline

KAT. Komitee für Astro .Teilchen . Physik

[News from KAT]

• KAT elections 2022 and KAT envoys in other Committees

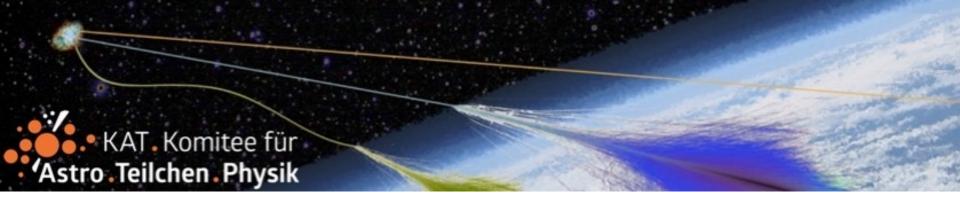
[Recap 2022]

- DZA
- ErUM-Pro Universe
- ErUM-Data and DIG-UM
- NFDI

[Upcoming]

• Science Year 2023 "Our Universe"

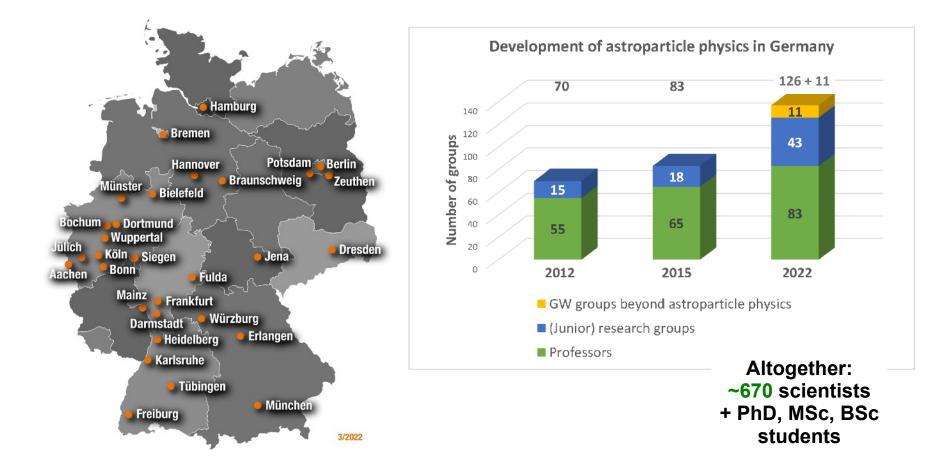
Most material drawn from report of KAT Chair at the Annual Meeting, 1-2 Dec. 2022



News from KAT

Astroparticle physics in Germany







Nine constituencies; newly elected members and deputies (2022-2025) in red:

Constituency	Elected member	Deputy
Dark Matter	Manfred Lindner	Federica Petricca
Neutrino properties	Kathrin Valerius	Stefan Schönert
Low-energy v astrophysics	Achim Stahl	Michael Wurm
Cosmic rays	Markus Roth	Michael Schmelling
Gamma-ray astronomy	Stefan Funk	David Berge
High-energy v astrophysics	Uli Katz	Marek Kowalski
Nuclear astrophysics	Uwe Oberlack	Daniel Bemmerer
Gravitational waves	Michèle Heurs	Harald Lück
Theory	Walter Winter	Michael Klasen

- 9 new, 9 re-elected
- Plus (non-voting) *ex officio* representations from important partners/committees in particular: W. Nörtershäuser (KHuK), K. Borras (KET), J. Wilms (RDS).

KAT elections 2022



Old and new Chair: Uli Katz



Deputy Chair: Andreas Haungs



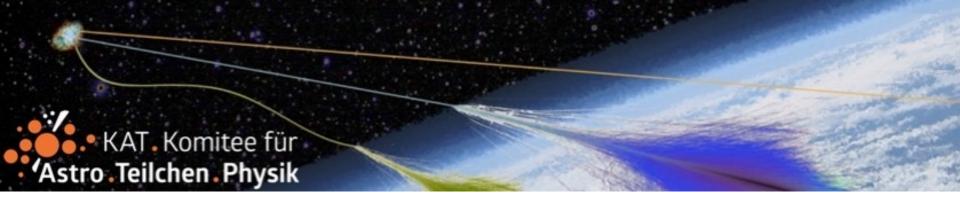
→ Kathrin Valerius



KAT envoys (and deputies) to other Committees:

- KET (particle physics):
- RDS (astrophysics):

- Manfred Lindner (Achim Stahl) Christian Stegmann (David Berge)
- KHuK (hadron/nuclear physics): Kathrin Valerius (Uwe Oberlack)



Recap 2022

Deutsches Zentrum für Astrophysik

https://www.deutscheszentrumastrophysik.de/



Mission Zentrum Forschung & Transfer Netzwerk Aktuelles

Wir haben es geschafft: Das Deutsche Zentrum für Astrophysik - Forschung. Technologie. Digitalisierung. (DZA) kommt in die sächsische Lausitz. Hier geht's zu der Pressemitteilung:

Pressemitteilung (PDF, 0,2 MB)

Deutsches Zentrum für Astrophysik

https://www.deutscheszentrumastrophysik.de/



- New national research centre in Lusatia/Saxonia
- Objectives:
 - Astrophysics research (initial focus: Radio astronomy, gravitational waves)
 - Data and computing, green IT (e.g. for SKA data)
 - Technology centre (with low-seismic lab)
- Asymptotically 170 M€ / year
- Founding director: Günther Hasinger
- Opening of ~5 new professorships expected soon

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5+6 May 2022, Hamburg: Strategy talks (KAT+RDS + BMBF/711 + ...)

- Intense common preparation KAT + RDS
 - → New: Common strategy document (still needs work ...)
- Enhanced focus on sustainability & societal role

14 Oct 2022: Call for proposals

- No surprises, reflects strategy talks
- Tight deadline (15 Nov 2022), but consortia had already been active

15 Nov 2022: Submission date

• No cross-sectional applications (time too short, somewhat discouraged)

Funding period 2023-26

- Some optimism that funding will remain roughly constant (but: Inflation, energy costs, \$/€ exchange rate, ...)
- Important: Avoid gaps in contracts (social security, visa issues ...)
 - → Funding notifications should arrive at least 2 months before start of funding period

ErUM-Data and DIG-UM



ErUM-Data: Action program of BMBF

- ErUM-Data-Hub:
 - → Networking, digital competences, exchange and coordination
 - → Coordinated by M. Erdmann, RWTH
- Call for "software and algorithms"
 - → Results not formally known yet
 - \rightarrow Small funding rate
 - → Felt to be a difficult start

DIG-UM

- Self-organisation of community
 - → includes 8 committees
 - \rightarrow no third-party funding
 - \rightarrow sustained
- Organisation defined and established
- Annual meeting: Dec 12, 2022

KHuK Annual Meeting, 9-10 Dec. 2022 K. Valerius: Report from KAT





Overview Board (OB) 8 ErUM Committee Chairs, 1 Resource Provider Board Chair, 1 Spokesperson, 1 BMBF Representative, 1 PT-DESY Representative

_	Spokesperson /		Resource Provider Board (RB)								
lation	5 Co-spokespersons	1 Spokesperson, 5 Co-spokespersons,	10 Resource Provider Representatives								
lina		8 Experts from ErUM committees,	1								
oro		1 Resource Provider Representative	1								
Š	Annual Conference of the ErUM-Data Working Groups										

	Federated	Big Data Analytics	Research Data	User Interface	Knowledge
	Infrastructures	Coordinators,	Coordinators,	Coordinators,	Distribution
sdr	Coordinators,	Experts	Experts	Experts	Coordinators,
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	Compute power	Autonomization	Management	Developers' work	Workshops
	Utilization	Control &	Curation	User support	Schools
	Workflows	Preservation			

DIG-UM activities and calendar







Intensive courses on DL applications in ErUM



Busy DIG-UM calendar 2022

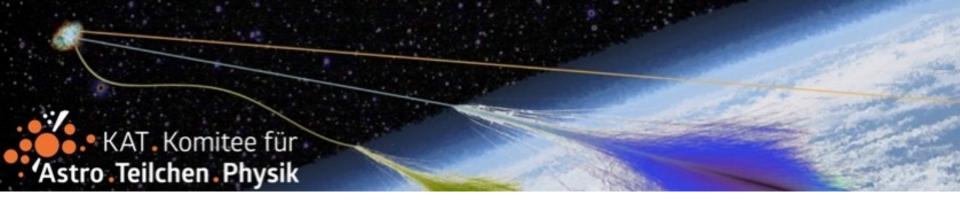
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NFDI



PUNCH4NFDI = Particles, Universe, NuClei and Hadrons for the NFDI

- Represents particle physics, astrophysics, astroparticle physics and hadron & nuclear physics
- More than 4500 scientists with PhD work in these fields in Germany
- Tackles challenges towards sustainable and FAIR data in PUNCH Sciences
- Organised in Task Areas; ca. 100 colleagues from ca. 20 institutes are directly involved
- Is now in all Task Areas in full operation towards reaching first milestones



Outlook

KHuK Annual Meeting, 9-10 Dec. 2022

K. Valerius: Report from KAT

BMBF Science Year 2023: Our Universe

Preparatory activities

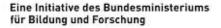
- "Begleitkreis" (advisory role)
 - → Very broad spectrum
 (BMBF, PT-DESY, science, outreach, PR agencies, …)
- Direct exchange with BMBF and PT-DESY
 - \rightarrow Significant activities by astronomy community, advanced planning
 - \rightarrow KAT: Contribution to "Astro-Notizbuch", live connections to experiments
 - → Interest of TV stations in such live events? (Central coordination required.)

Astro-Notizbuch

- 1 page in the booklet on astroparticle physics, in preparation
- Short text + QR link to public web page (to go live around mid-January) https://www.astroteilchenphysik.de/was-ist-astroteilchenphysik.html

Opening of Science Year: 25.1.2023, Berlin

K. Valerius: Report from KAT









Looking forward to exciting research and many new opportunities in the next year(s).

Thank you and all the best for 2023!

