



KHuK Annual Meeting, 8-10 Dec. 2022

Report from KAT

Kathrin Valerius
Karlsruhe Institute of Technology



[News from KAT]

- KAT elections 2022 and KAT envoys in other Committees

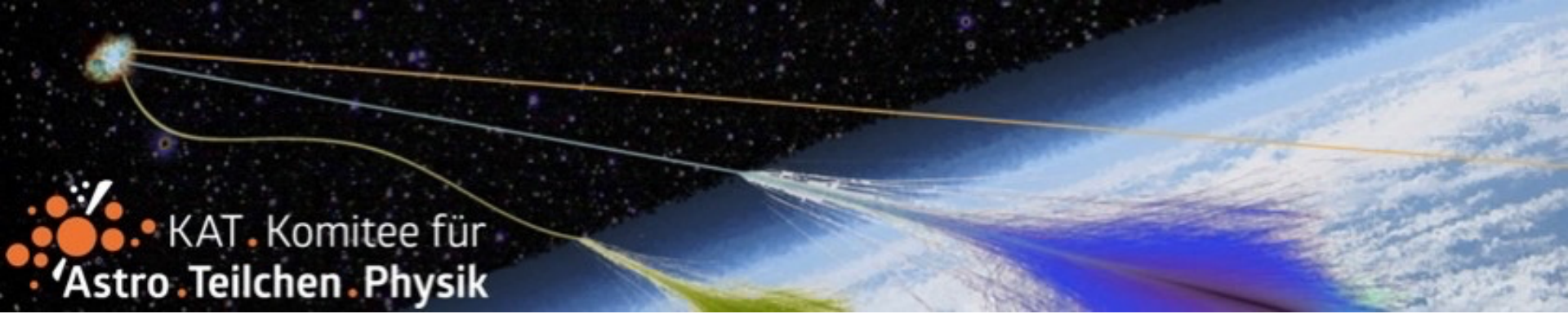
[Recap 2022]

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

[Upcoming]

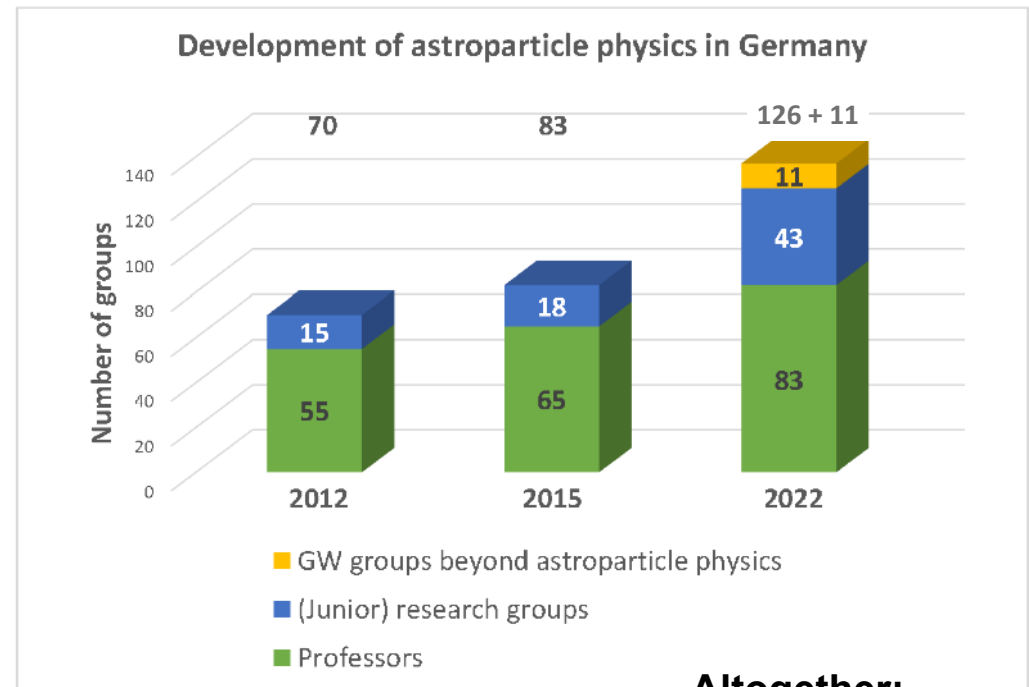
- Science Year 2023 “Our Universe”

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



News from KAT

Astroparticle physics in Germany



Altogether:
~670 scientists
+ PhD, MSc, BSc
students

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 ν astrophysics	Achim Stahl	Michael Wurm
Cosmic rays	Markus Roth	Michael Schmelling
Gamma-ray astronomy	Stefan Funk	David Berge
High-energy ν 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).

**Old and new Chair:
Uli Katz**

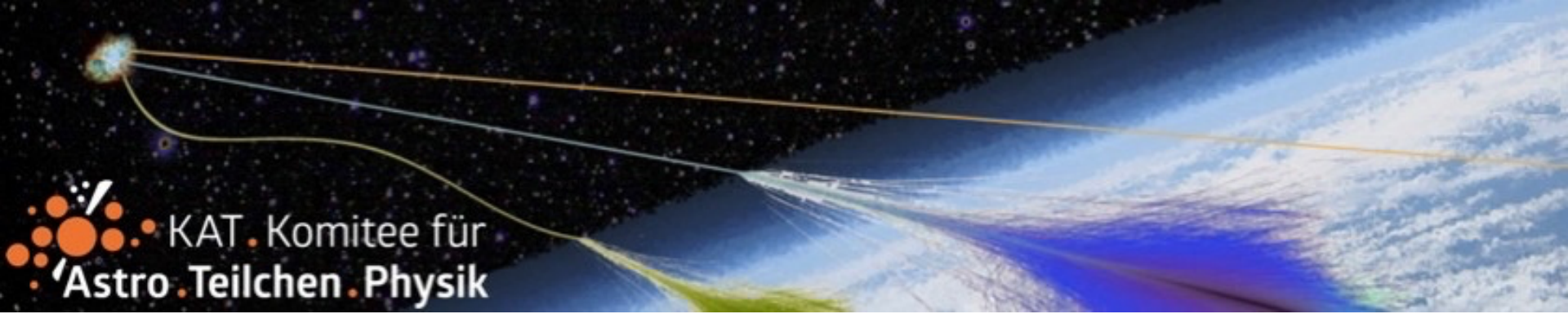


**Deputy Chair:
Andreas Haungs → Kathrin Valerius**



KAT envoys (and deputies) to other Committees:

- KET (particle physics): Manfred Lindner (Achim Stahl)
- RDS (astrophysics): 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

Mission Zentrum Forschung & Transfer Netzwerk Aktuelles

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Pressemitteilung (PDF, 0,2 MB)

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

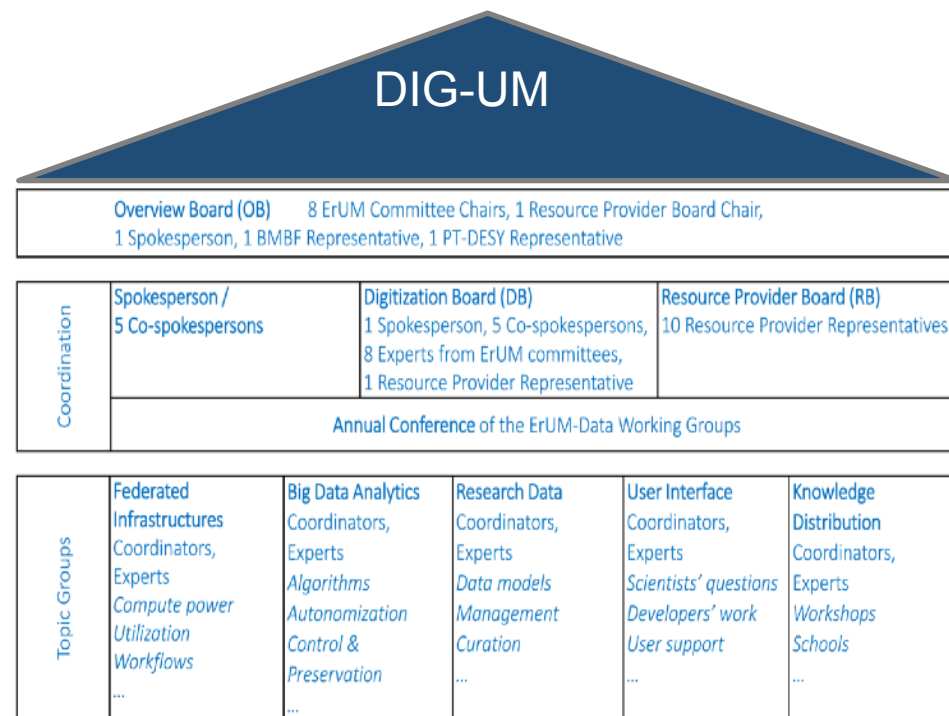
ErUM-Data: Action program of BMBF

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



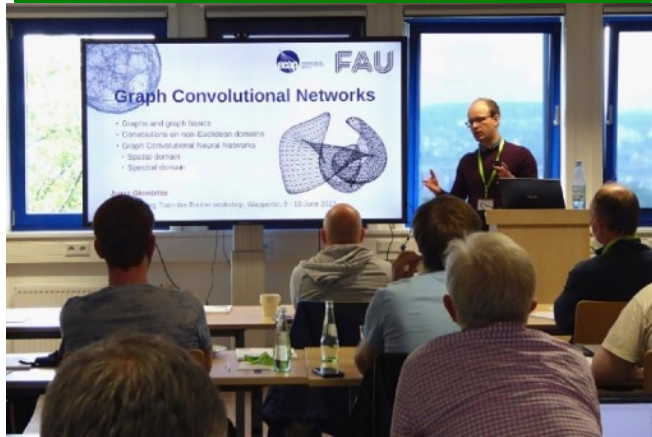
DIG-UM

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



DIG-UM activities and calendar

Train-the-trainer workshop on deep learning



Busy DIG-UM calendar 2022

Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1 S	1 D	1 D	1 F	1 S	1 M	1 F	1 M	1 D	1 S	1 D	1 D
2 S	2 M	2 M	2 S	2 M	2 D	2 S	2 D	2 F	2 M	2 M	2 F
3 M	3 D	3 D	3 S	3 D	3 F	3 S	3 M	3 F	3 D	3 D	3 S
4 D	4 F	4 F	4 M	4 M	4 S	4 M	4 D	4 S	4 D	4 F	4 S
5 M	5 S	5 S	5 D	5 D	5 S	5 D	5 F	5 M	5 M	5 S	5 M
6 D	6 S	6 S	6 M	6 F	6 M	6 M	6 S	6 D	6 D	6 S	6 D
7 F	7 M	7 M	7 D	7 S	7 D	7 D	7 S	7 M	7 F	7 M	7 M
8 S	8 D	8 D	8 F	8 S	8 M	8 F	8 M	8 D	8 S	8 D	8 D
9 S	9 M	9 M	9 S	9 M	9 S	9 S	9 D	9 F	9 S	9 M	9 F
10 M	10 D	10 D	10 S	10 D	10 F	10 S	10 M	10 S	10 M	10 D	10 S
11 D	11 F	11 F	11 M	11 M	11 S	11 M	11 D	11 S	11 D	11 F	11 S
12 M	12 S	12 S	12 D	12 D	12 S	12 D	12 F	12 M	12 M	12 S	12 M
13 D	13 S	13 S	13 M	13 F	13 M	13 M	13 S	13 D	13 D	13 S	13 D
14 F	14 M	14 M	14 D	14 S	14 D	14 D	14 M	14 M	14 F	14 S	14 D
15 S	15 D	15 D	15 F	15 S	15 M	15 F	15 M	15 D	15 S	15 D	15 S
16 S	16 M	16 M	16 S	16 M	16 D	16 S	16 D	16 F	16 S	16 D	16 S
17 M	17 D	17 D	17 S	17 D	17 F	17 S	17 M	17 S	17 M	17 D	17 D
18 D	18 F	18 F	18 M	18 M	18 S	18 M	18 D	18 S	18 D	18 S	18 D
19 M	19 S	19 S	19 D	19 D	19 S	19 D	19 F	19 M	19 M	19 D	19 F
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21 F	21 M	21 M	21 D	21 S	21 D	21 D	21 M	21 M	21 F	21 D	21 S
22 S	22 D	22 D	22 F	22 S	22 M	22 F	22 M	22 D	22 S	22 D	22 D
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28 F	28 M	28 M	28 D	28 S	28 M	28 D	28 M	28 D	28 F	28 M	28 D
29 S	29 D	29 D	29 S	29 M	29 D	29 M	29 M	29 S	29 S	29 D	29 D
30 S	30 M	30 M	30 D	30 S	30 M	30 D	30 M	30 F	30 S	30 M	30 F
31 M	31 D	31 D	31 S	31 M	31 D	31 S	31 M	31 D	31 M	31 D	31 S

**Annual
Meeting
12.12.22**

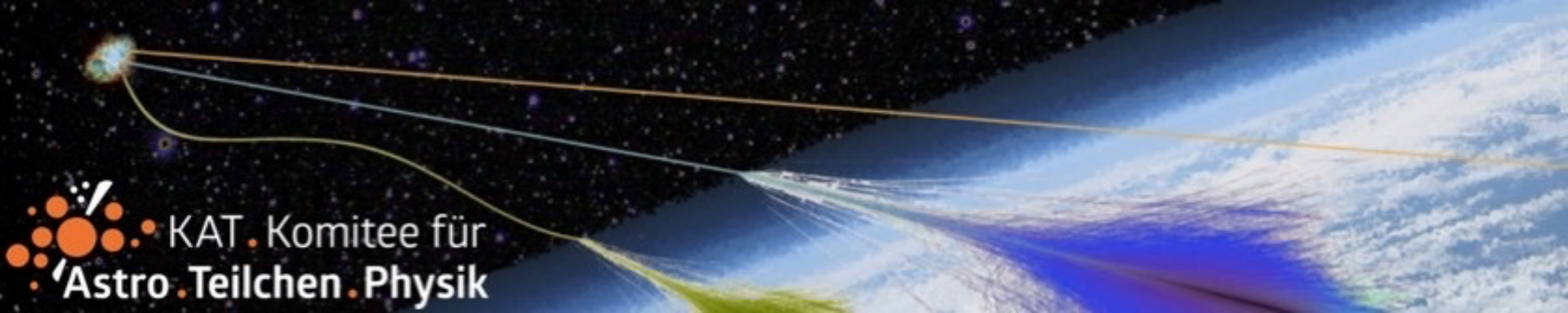
**ErUM-Data +
NFDI meeting**

Intensive courses on DL applications in ErUM



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

Preparatory activities

- “Begleitkreis” (advisory role)
 - Very broad spectrum
(BMBF, PT-DESY, science, outreach, PR agencies, ...)
- Direct exchange with BMBF and PT-DESY
 - Significant activities by astronomy community, advanced planning
 - 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**



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

Thank you
and all the best for 2023!

