



CLUSTER OF EXCELLENCE QUANTUM UNIVERSE

THE QUANTUM UNIVERSE TEAM

Contributing Scientists

- 34 principal investigators
- 57 research groups, including 14 young investigator group leaders
- in total about 300 scientists



A Strong Partnership





Partnership for Innovation, PIFR Education and Research

- Nearly 60 years of unparalleled cooperation
- 6 joint appointments on Quantum Universe

(Assistant Professor, tenure track W1/W2)

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External funding over the past 10 years

- **Collaborative Grants:**
 - DFG CRC 676 "Particles, Strings and the early Universe"

New Strategic Appointments

(Associate Professor, W2)

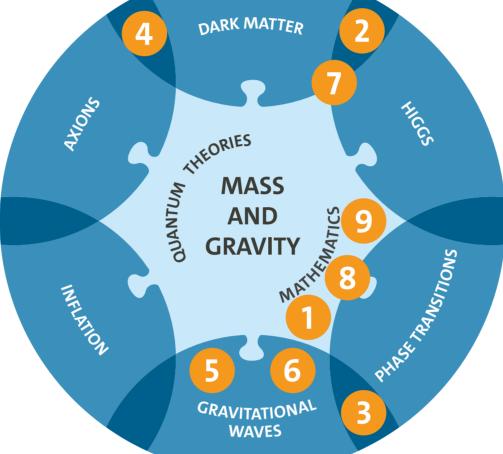
(Associate Professor, W2)

(Staff scientist, tenure track)

(Full Professor, W3)

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- DFG RTG 1670 "Mathematics Inspired by String Theory and QFT"
- DFG RTG 1351 "Extrasolar Planets and their Host Stars"
- BMBF Projects (CMS@LHC, CMS upgrade, LOFAR)
- HGF Alliance "Physics at the Terascale"
- Hamburg Excellence Initiative "Connecting Particles with the Cosmos"
- Individual Grants:
 - Humboldt Professorship
 - Heisenberg Professorship
 - Lichtenberg Professorship
 - 5 Helmholtz Recruitment Initiative Professorships
 - ERC: 2 Advanced Grants, 3 Consolidator Grants, 5 Starting Grants
 - 10 DFG Emmy Noether groups



- Geometric Analysis*
- 2. Detector Science
- 3. Theoretical Astrophysics*
- 4. Precision Non-Collider Particle Physics
- 5. Gravitational Wave Detection
- 6. Cryogenic Gravitational Wave Detectors*
- 7. Data Science*
- 8. String Geometry
- 9. Higher Structures in Algebra and Geometry (Associate Professor, W2, Lichtenberg)

* positions advertised, 5. O. Gerberding 8. J. Holstein 9. T. Dyckerhoff

QUANTUM UNIVERSE RESEARCH SCHOOL

Educate New Leaders in Science and Economy

- ~150 doctoral students, ~80 postdocs and 14 young group leaders
- career development support for young scientists
- based on long experience with existing schools
- individual budgets for research and career development
- 55% of total funding for early career researchers

QURS **Quantum Universe Research School** doctoral young group leaders postdocs students

Individual supervising/mentoring teams

Supervision / Mentoring

EQUAL OPPORTUNITY AND DIVERSITY

Increase Number of Female Researchers

- active scouting on all career levels
- additional postdoc for female group leaders
- additional sabbatical leave for female PIs
- annual guest scientist award for female researchers
- physics meets gender conferences
- dynaMENT: Mentoring for Women in Natural Sciences
- workshop series: Academic Leadership for Women
- tenure-track as a new career option

Improve Compatibility of Career and Family

mentoring and coaching



family compatibility

career workshops and networking

Women's Train your skills, develop your abilitie



| draft individual career plan (ICP) | |
|---|--------------------|
| Program specified in ICP | Academic training |
| Program specified in ICP | Soft skill courses |
| Available for all three groups | Individual budgets |
| Separate annual awards for each group | Awards |
| Each group represented in governance and organisation | Participation |



- additional postdoc for group leaders taking parental leave
- foster family friendly work environment
- information and advise on legal ramifications
- workshop series: Scientific Career and Parenthood
- parent-child offices
- emergency child care solutions

Raise Awareness for Diversity

- non-biased recruiting: workshops for PIs and shadowing of job interviews by experts
- courses on diversity issues in academic lecturing
- diversity workshops

Strong Central Support

- Universität Hamburg certified as family-friendly working environment
- Local daycare (Kinderwelt@DESY)



parent-child offices



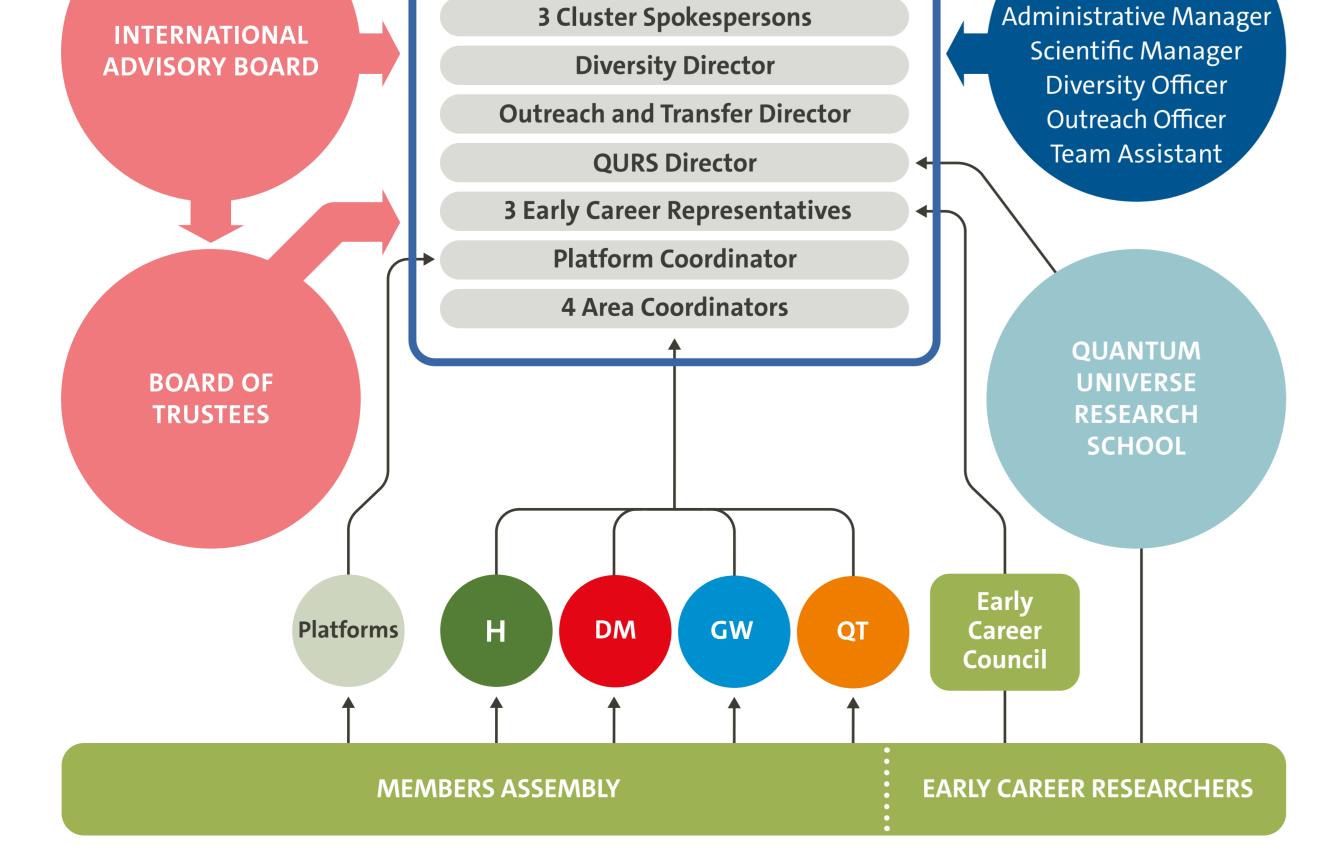


PUBLIC OUTREACH ACTIVITIES

Science on Tap







Schools









Science Night





