

# **Center for Theoretical Physics Polish Academy of Sciences**

Aleja Lotników 32/46, 02-668 Warsaw

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E-mail: cft@cft.edu.pl, NIP: 525-000-92-81, REGON: 000844815



#### Msz/29/2025

#### FORM FOR EMPLOYERS

INSTITUTION: Center for Theoretical Physics, Polish Academy of Sciences

CITY: Warsaw

POSITION: Team Leader - research group leader (tenure track)

DISCIPLINE: **Physics**POSTED: **2025-11-12**EXPIRES: **2026-01-31** 

WEBSITE: https://www.cft.edu.pl

**KEY WORDS:** 

- Computational modelling

- Macroscopic quantum phenomena: superconductivity, superfluidity, etc.
- Mesoscopic physics
- Quantum optics and quantum information
- Ultra-cold atoms and molecules
- Quantum Technologies, Quantum Information, Quantum State generation, Superfluidity

# Team Leader - research group leader (tenure track)

Center for Theoretical Physics PAS is dedicated to promoting the role of women in science, and, therefore, explicitly invites women to apply.

Reference no.: Msz/29/2025

Place: Warszawa, PL

**Salary**: ca. PLN 17 000 - 21 000/month gross (ca. PLN 13 000 - 16 000/month net)

Number of posts: 1
Mode of work: on-site

Position available since 01.05.2026 for the period of 36 months (possible extension to

an indefinite period).

#### Important deadlines:

1. Document admission deadline: 31.01.2026

2. Results deadline: 30.04.2026 r.







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#### Source of financing:

EUCENTRAL: CENTER FOR QUANTUM TECHNOLOGIES MODELLING - [HORIZON-WIDERA-2023-TALENTS-01-01] — [ERA Chair] project financed by the

European Commission (agreement no.: 101186579).

Project website: https://eucentral.cft.edu.pl/

# **About us**

The Center for Theoretical Physics of the Polish Academy of Sciences (CTP PAS) is a research institute focused on a number of theoretical physics subjects. CTP PAS was established in 1980 and is located in Warsaw.

CTP PAS is focused on research within various subjects of physics, such as quantum information, cosmos and gravity research, semiconductors, and atomic gases. The Institute's strategy is to hire the best and to give them freedom of research. As an effect, CTP PAS boasts a strong position in Poland, world-class publications (published in Nature and Science), a large number of grants (ca. 30 projects), and participation in international consortia. In terms of citations per employee, CTP PAN is among the forefront of Polish physics.

CTP PAS also organises a number of scientific events, including seminars, workshops, and conferences open to the public, and creates educational materials available on the Institute's YouTube channel.

# About the position

We are seeking a research team leader (the position is offered as part of the tenure track) to join the CTP PAS research team. The candidate should demonstrate a passion for science and a willingness to make a lasting commitment to the Institute and contribute to its development by conducting high-quality research, establishing their own research group, securing research grants, and being active in the organisation. The salaries of the members of the emerging research team will be financed through the EUCENTRAL project (min. 2 PhD students and post-docs). Furthermore, funds for conference travel will be provided for the team (for the duration of the project).

Your main responsibilities will include:

- conducting high-level scientific research in theoretical physics,
- publishing the obtained results in leading scientific journals,
- building and maintaining the 'Modelling for Quantum Technologies' research team in collaboration with Prof. Marzena Szymańska (ERA Chair Holder), and actively participating in team management and implementing EUCENTRAL project tasks (https://eucentral.cft.edu.pl/).
- active participation in the Institute's scientific life,







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- obtaining external research funding (grants),
- developing a platform with codes for computations within many-body quantum mechanics (<a href="https://cft-pan.github.io/quantum-modelling-centre/about/">https://cft-pan.github.io/quantum-modelling-centre/about/</a>),
- collaboration in organisational activities and engaging in the development of young scientific staff.

The position is offered as part of the tenure track. The selected candidate will be hired for the period of 36 months as a professor/institute professor or adjunct (depending on academic rank or title). After this period, it is possible to extend the employment for an indefinite period, provided that within the first 33 months the candidate meets the following requirements:

- in collaboration with Prof. Marzena Szymańska (ERA Chair Holder), establishes a research group at CTP PAS engaged in Modelling for Quantum Technologies,
- submits an application for an ERC project and/or obtains at least one research project funded from external sources for a minimum of PLN 1000000,
- obtains a positive opinion from other independent researchers at CTP PAS, based on reviews by three external experts (including any reviews obtained during the habilitation process),
- submits an application for the habilitation degree (if such an application has not been submitted previously).

The call will be conducted by the CTP PAS Recruitment Committees, hereinafter referred to as the "Committee for Young Scientists" and the "Advisory Board Recruitment Committee". The call consists of three stages:

- Formal evaluation of the application. Applications will be evaluated for formal compliance by the Committee for Young Scientists in consultation with the Advisory Board Recruitment Committee and the CTP PAS HR department. If formal deficiencies are identified, the Committee may request that candidates supplement their application.
- 2. **First stage of substantive assessment.** Candidates will be evaluated by the Committee in each of the following categories:
  - o scientific achievements,
  - o experience in implementing scientific projects,
  - the candidate's scientific potential in the context of the development of the team and the Institute.

Based on the scoring results, a ranking list will be created. The top candidates will be invited to the next stage of the call (the second stage of substantive assessment).

3. **Second stage of substantive assessment.** Selected candidates (from the shortlist) will be asked to deliver a public research paper report and will be







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interviewed by representatives of CTP PAS. The paper report and interview may be conducted remotely (online). At this stage, the Committees <u>may</u> seek the opinion of external experts with the title of professor or outstanding scientific achievements outside of CTP PAS. After the second stage, the final ranking list will be prepared. The final recommendation regarding the candidate's employment will be made by the Advisory Board Recruitment Committee based on the results of all stages (scoring, paper report, expert opinion, and interview). The hiring decision will be made by the Director of CTP PAS.

Questions regarding the position or the recruitment process can be sent to the e-mail address: recruitment@cft.edu.pl.

If you require accommodations or a more accessible format to apply for this position, please contact us at <a href="mailto:recruitment@cft.edu.pl">recruitment@cft.edu.pl</a>.

### About the candidate

Required qualifications, experience, and knowledge

#### Required skills and abilities

- PhD degree,
- significant scientific achievements in quantum system modelling, quantum technologies, or related fields,
- documented ability to obtain research grants on a scale enabling the development of your own research team,
- ability to manage the work and tasks of a team within a scientific environment,
- ability to work effectively in a team and collaborate within a scientific environment,
- high motivation to engage in the development of young scientific staff and the scientific potential of the Institute,
- specific requirements: experience utilizing tensor network methods or DMRG for research applications.

#### Preferred qualifications, experience, and knowledge

- experience in research work abroad (for example postdoctoral fellowships),
- awards, distinctions, or scholarships awarded for scientific achievements,
- experience in training junior researchers or organising scientific events.

#### Preferred skills and abilities

 leadership and organisational skills (the ability to independently manage a research team and projects),







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 developed communication skills, including the ability to present and popularise research findings.

## What we offer

- a full-time, fixed term employment contract for 36 months (with the possibility of extension to an indefinite period,
- own research fund (ca. PLN 15000/year),
- salary: ca. PLN 17 000 21 000/month gross (ca. PLN 13 000 16 000/month net),
- a scientifically stimulating research environment,
- a friendly and flexible working environment,
- sharing knowledge and experience,
- flexible working hours,
- a diverse and inclusive culture where mutual support, teamwork, and respect are highly valued,
- Multisport card subsidy,
- recreation subsidy,
- nursery and preschool subsidy.

# How to apply

Please send your application to: <u>recruitment@cft.edu.pl</u>, by 31.01.2026, with the reference number ("Msz/29/2025") in the subject line.

#### Required documents:

- A cover letter containing information about the proposed date of employment at CTP PAS, a brief description of your current and planned research, along with a justification (max. 4 pages),
- 2. A resume containing a list of publications and other scientific achievements,
- 3. A list of your three most important achievements, such as publications, patents, awards, and supervisory positions (max. 3000 characters),
- 4. A list of research projects you have managed and roles you have performed in research project administration,
- 5. Other documents that may significantly impact the candidate's evaluation,
- 6. A statement stating that CTP PAS will be your primary place of work in the event of an employment offer,
- 7. Documents confirming the candidate's academic degree<sup>1</sup>,
- 8. A list of at least 2 scientists who will agree to write a letter of recommendation,
- 9. A personal data protection declaration (form available at: GDPR clause).

<sup>&</sup>lt;sup>1</sup> In some cases, foreign diploma recognition may be required before employment at CTP PAS.







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Only selected candidates will be invited to an interview for the second stage.

### How we recruit?

We carefully review each application. Those whose experience and qualifications align with our needs and requirements are invited to an interview (usually held remotely).

We maintain contact with candidates throughout the entire process, ensuring a friendly atmosphere during the interviews, and providing feedback afterwards. We approach each candidate individually, including the needs of individuals with disabilities.

We appreciate all feedback submitted after the recruitment process. It motivates us to improve our recruitment efforts.

# Our commitment to equality, diversity and inclusion

CTP PAS operates in an inclusive environment, regardless of personal, physical, or social characteristics. We highly value teamwork, recognise and appreciate individual strengths, and support the career development of every employee.

Equality, respect and openness are fundamental values in an academic environment where diversity is essential. We strive to provide a safe and inclusive space for all members of our scientific community.

CTP PAS has a Code of conduct for reporting violations and the protection of whistleblowers.



