

# ERC Doctoral Position in Low-Dimensional Topology and Knot Theory

Online seit 01.10.2024 | 2024-10-01-892371 | Wissenschaftliche:r Mitarbeiter:in

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## Stellenbeschreibung

The Chair of Low-dimensional Topology at the Faculty of Mathematics is looking for a **ERC Doctoral Position (m,f,x) in Low-Dimensional Topology and Knot Theory for 3 years with 29,8725 hours per week, TVL E13**

The research group works in low-dimensional topology and knot theory. We are interested in link homology theories, such as Heegaard Floer and Khovanov homology, and their application to open topological problems. Our work is supported by an individual research grant (project number 505125645) from the German Research Foundation (DFG) and a Starting Grant (project number 101115822) from the European Research Council (ERC).

### Your tasks:

- Doctoral research relevant to the ERC Starting Grant "Cut-and-paste conjectures and multicurves".
- Conduct individual and collaborative research projects under the supervision of the PI of the ERC Starting Grant, "Cut-and-paste Conjectures and Multicurves", through which the position is funded.
- Publish high-quality papers in peer-reviewed journals.
- Disseminate research through talks at international workshops and conferences.
- Organize and actively participate in research group seminars.
- Contribute to fostering a collegial, inclusive, and respectful working environment where everyone is treated fairly, with dignity and respect.

## Anforderungsprofil & Qualifikationen

### Your profile:

- (Essential) Excellent Bachelor's Degree
- (Essential) Excellent Master's Degree (or be close to submission)
- (Essential) Good communication skills in either English or German
- (Desirable, but not essential) Master thesis in topology, geometry, or algebra
- (Desirable, but not essential) Working knowledge of a programming language (e.g., Python, C, C++)

#### **Our offerings:**

- Challenging and varied tasks with a high degree of personal responsibility
- A modern, well-equipped workplace
- a workplace in a green environment with direct access to the botanical garden of the Ruhr University Bochum

#### **Additional information:**

At the request of the applicant (m,f,x), the staff council may be involved in selection interviews. <https://www.wpr.ruhr-uni-bochum.de/>

If the position is funded by third-party funds the employee has no teaching obligation.

German language courses are offered by the University Language Center (ZfA) in the field of German as a Foreign Language (DaF).

<https://www.daf.ruhr-uni-bochum.de/sbgk/index.html.en>

You can find information about TVL at: <https://oeffentlicher-dienst.info/>

Please submit the following documents as separate PDF attachments:

#### **1. Cover letter (1–2 pages):**

- Provide a brief summary of your mathematical interests.
- Indicate your preferred start date.
- (*Optional*) Highlight any specific points about your application, such as reasons for joining my research group at Ruhr University Bochum.

#### **2. Full CV (no page limit):**

- Include full details of your university studies.
- Mention any programming experience, providing evidence where applicable (e.g. links to coding projects in online repositories such as GitHub).

#### **3. A reference letter from the supervisor of your Bachelor's thesis (or equivalent):**

- Please ask your supervisor to send the letter directly from their institutional email address before the deadline.
- If, for some reason, you cannot provide such a letter (e.g. if you have not written a Bachelor's thesis or equivalent), please explain the situation briefly in your cover letter and

ask a university teacher who knows you well to provide a reference letter instead.

**4. A reference letter from the supervisor of your Master's thesis (or equivalent):**

- Please ask your supervisor to send the letter directly from their institutional email address before the deadline.
- If the supervisors of your Bachelor's and Master's theses are one and the same person, or if you cannot provide a reference letter from the supervisor of your Master's thesis, please explain the situation briefly in your cover letter and ask another university teacher who knows you well to provide the second reference letter.

**5. (Optional) Reference letter from other mathematicians:**

- Please ask them to send the letter directly from their institutional email address before the deadline.

**6. Official transcript of your Bachelor's degree**

**7. A copy of your Bachelor's thesis (or equivalent, if available)**

**8. Official transcript of your Master's degree**

**9. A copy of your Master's thesis (or equivalent, if already available)**

Short-listed candidates for the PhD position will be interviewed remotely, with interviews expected to take place in December 2024 or early January 2025.

**The Ruhr-Universität Bochum is one of Germany's leading research universities, addressing the whole range of academic disciplines. A highly dynamic setting enables researchers and students to work across the traditional boundaries of academic subjects and faculties. To create knowledge networks within and beyond the university is RUB's declared aim.**

The Ruhr-Universität Bochum stands for diversity and equal opportunities. For this reason, we favour a working environment composed of heterogeneous teams, and seek to promote the careers of individuals who are underrepresented in our respective professional areas. The Ruhr-Universität Bochum expressly requests job applications from women. In areas in which they are underrepresented they will be given preference in the case of equivalent qualifications with male candidates. Applications from individuals with disabilities are most welcome.

**Contact details for your application:**

Claudius Zibrowius, [claudius.zibrowius@rub.de](mailto:claudius.zibrowius@rub.de)

Insa Meffert, [insa.meffert@rub.de](mailto:insa.meffert@rub.de)

Travel expenses for interviews cannot be refunded.

For information on the collection of personal data in the application process see:  
<https://www.ruhr-uni-bochum.de/en/information-collection-personal-data-application-process>.

We are looking forward to receiving your **application with the specification ANR: 3851 until 30/11/2024**, send by e-mail to the following address: [claudius.zibrowius@rub.de](mailto:claudius.zibrowius@rub.de)

Please get in touch with the contact person named above if you would like to use an alternative application channel.

## Vorteile für Mitarbeitende

- Sport- und Freizeitangebote
- Weiterbildungsmöglichkeiten
- Vergünstigtes Jobticket
- Arbeitsplatz in lebendiger Metropolregion

## Stellenmerkmale

Beschäftigungsart	Wissenschaftliche:r Mitarbeiter:in
Beschäftigungsumfang	Teilzeit (befristet)
Home Office	Nein
Bewerbungslink	<a href="https://jobs.ruhr-uni-bochum.de/jobposting/3f1ab80cb900a1230eb0e9053d54618b96e58f3b?ref=stellenwerk">https://jobs.ruhr-uni-bochum.de/jobposting/3f1ab80cb900a1230eb0e9053d54618b96e58f3b?ref=stellenwerk</a>

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## Kontaktdaten

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Anschrift	Universitätsstraße 150 44801 Bochum

Kontakt

E-Mail

Webseite

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<https://uni.ruhr-uni-bochum.de/de/stellenangebote>