

Jobbnorge ID: 276593

Deadline: 3/24/2025

Website: <http://www.uia.no>

Scope: Fulltime

Duration: Fixed Term

PhD Research Fellow in Mathematics Education

About the position

A 100 % position as a PhD Research Fellow in Mathematics Education is available at the University of Agder, Faculty of Engineering and Science, affiliated to the Department of Mathematical Sciences, for a period of three years. The position is located, at present, at Campus Kristiansand. The starting date is negotiable with the Faculty.

The fellowship is within the [Department of Mathematical Sciences](#). The department has a large and active research group in mathematics education, MERGA, with about 15 fellows on its PhD programme. MERGA was rated very highly in a national survey of educational research conducted by The Research Council of Norway in 2017, and when University of Agder in 2018 recognised Priority Research Centres, MERGA was awarded such a status for five years, documenting the quality of the research group, and [MERGA is now an active research centre](#). The person appointed will join MERGA, and one of the three current strands of research within MERGA: [MaThs - Mathematical Thinking in schools](#).

The mathematics education research group has substantial and on-going experience of leading and contributing to large research projects funded by the EU, the Research Council of Norway, Nordforsk, the Competence Development Fund of Southern Norway, and others. [The Department hosts the Graduate School in Mathematics and Science Education in Norway, MaScE](#) and contributes actively to the Nordic mathematics education community. The University of Agder has excellent library support and collection of research literature in mathematics education (in English and Scandinavian languages) and on-line access to all leading journals in the field.

Research proposal project

The application must contain a research proposal. The proposal (preliminary) sets out background, rationale, recent work and research design for the intended study. This should not extend beyond about 5 pages. It must be evident which projects below it relates to (Project 1, 2 or 3).

Project 1: Creating learning opportunities in mathematics for low achieving pupils. This project seeks ways to build on children's funds of knowledge, especially among students from Sami and Kven communities, students with low socioeconomic status, and students who are not learning in their home language. It will explore culturally responsive pedagogies for mathematics learning in schools.

Project 2: Generalising and formalising in school algebra. This project seeks to understand the transition from early algebra, characterised by concrete approaches to pattern and structure, to more abstract and formal algebra using symbols to convey generalisations. The role of multiple representations, including dynamic digital representations, will be a part of this. Implications for teacher education will be explored.

Project 3: Comparing algebraic argumentation across cultures. This project seeks to explore how argumentation is used in algebra teaching internationally, with reference to policy documents, textbooks and classroom practices. It builds on work being done in Japan, Norway, Germany, and Türkiye, and basic knowledge of at least two of those languages, and English, is an asset. With basic knowledge we think of knowledge from own school education or knowledge developed by living in these countries.

Responsibilities

A prerequisite for employment is that the candidate is to be admitted to [UiA's PhD programme at the Faculty of Engineering and Science, specialisation in Mathematical Sciences](#) and the scientific area Mathematics Education.

Required qualifications

The candidates must hold a master's degree in Mathematics Education or a closely related and relevant field. A teaching qualification is also essential.

As a general rule, the following should normally apply:

- The average grade for courses included in the bachelor's degree (or equivalent) should be C (or equivalent) or higher.
- The average grade for all courses (including the dissertation) in the master's degree should be B (or equivalent) or higher.
- The master's dissertation (or equivalent) should have the grade B (or equivalent) or higher.
- When the applicant's average grades are lower than required, the hosting research group at the Faculty of Engineering and Science must document the probability of the applicant being able to complete the PhD programme. In such an event, the Faculty of Engineering and Science may recommend extra requirements to be included in the basis for admission.
- Competence in English is a requirement for all applicants to the PhD programme. International candidates that are not exempt from the English language requirements pursuant to the guidelines of the Norwegian Agency for Quality Assurance in Education (NOKUT), must document this through one of the following tests with the stated results or better:
 - TOEFL - Test of English as a Foreign Language with a minimum score of 600 for the Paperbased Test (PBT), or 92 for the Internet-based Test (iBT)

- o IELTS - International English Language Testing System, with the result of 6.5

The applicant must submit an approved project description within three months of appointment.

Further provisions relating to the positions as PhD Research Fellows can be found in the [Regulations Concerning Terms and Conditions of Employment for the post of Post-Doctoral Research Fellow, Research Fellow, Research Assistant and Resident](#).

Desired qualifications

Competence in Norwegian and/or Scandinavian language are desired and will be prioritized in the valuation of the candidates. The research group includes Norwegian and international scholars, and the research will be carried out at the University of Agder and in classes being taught in Norwegian. Additional University classes from elsewhere in Norway might also be included. For Project 3 (see above) also basic knowledge of either Japanese, German or French language is an asset.

Length of relevant school/university teaching experience will also be taken into account in the selection of a suitable candidate.

Experience in one or several of the below are also beneficial

- Collaboration in larger or smaller research projects and / or working groups.
- Knowledge and experience of conducting literature reviews.
- Documented competence in qualitative and/or quantitative research methods.

At the University of Agder, PhD dissertations may be written in Norwegian, another Scandinavian Language or English.

Personal qualities

Personal suitability and good teamwork skills will be emphasized in the evaluation as well as relevant practical experience. Research Fellows are expected to contribute to the active research community at the University. The position places demands on the applicant's capacity for independent goal-oriented work, ability to concentrate and attention to detail.

Ability to familiarize oneself with new issues and methodological approaches. Applicants will be assessed on the basis of academic background and results, attainment, and any previous research activity, in addition to a (preliminary) research proposal submitted with the application (see below).

Research visits to an external institution or with a national or international partner for part of the period of employment may be anticipated.

We offer

- professional development in a large, exciting and socially influential organisation
- a positive, inclusive and diverse working environment
- modern facilities and a comprehensive set of welfare offers
- membership of the [Norwegian Public Service Pension Fund](#)

[More about working at UiA.](#)

The position is remunerated according to the State Salary Scale, salary plan 17.515, code 1017 PhD Research Fellow, NOK 536 200 gross salary per year. A compulsory pension contribution to the Norwegian Public Service Pension Fund is deducted from the pay according to current statutory provisions.

General information

UiA is an open and inclusive university. We believe that diversity enriches the workplace and makes us better. We, therefore, encourage qualified candidates to apply for the position irrespective of gender, age, cultural background, disability or an incomplete CV.

The successful applicant will have rights and obligations in accordance with the current regulations for the position, and organisational changes and changes in the duties and responsibilities of the position must be expected. The engagement is to be made in accordance with the regulations in force concerning the acts relating to [Control of Export of Strategic Goods, Services and Technology](#). Appointment is made by the University of Agder's Appointments Committee for Teaching and Research Positions.

Short-listed applicants will be invited for interview. With the applicant's permission, UiA will also conduct a reference check before appointment. Read more about the [applying for a position process](#).

In accordance with the Freedom of Information Act § 25 (2), applicants may request that they are not identified in the open list of applicants. The University, however, reserves the right to publish the names of applicants. Applicants will be advised of the University's intention to exercise this right.

Application

The application and any necessary information about education and experience (including diplomas and certificates) are to be sent electronically. Use the link "[Apply for this job](#)".

The following documentation must be uploaded electronically:

- A letter of application which includes a rationale for applying for the position, together with an outline of the applicant's research interests and ability to conduct the proposed project within the outlined research proposal area.
- Certificates with grades.

- Master's thesis.
- References.
- A summary and links to the applicant's scientific publications, if produced, must be included if to be considered.
- A short research proposal (preliminary) that sets out background, rationale, recent work and research design for the intended study. This should not extend beyond about 5 pages, but it will form an important part of the evaluation of candidates. It must be evident that it relates well to one of the three proposed projects (under the heading "Research proposal project").
- Any other relevant documentation.

The applicant is fully responsible for submitting complete digital documentation before the closing date. All documentation must be available in a Scandinavian language or English.

Application deadline: 24.03.25

Contact

For questions about the position:

- Associate Professor Zelha Tunc Pekkan, tel. (+47) 38 14 25 91, e-mail zelha.t.pekkan@uia.no
- Professor David Reid, tel. (+47) 38 14 12 67, e-mail david.reid@uia.no
- Head of Department Ingvald Erfjord, tel. (+47) 38 14 15 47, e-mail ingvald.erfjord@uia.no

For questions about the application process:

- HR advisor Heidi Kristensen, tel. (+47) 38 14 13 79, e-mail heidi.kristensen@uia.no

Creating knowledge together

When people who are committed come together to further knowledge, anything is possible.

The University of Agder combines the unique warmth and charm of Southern Norway with first-class scientific, technological and artistic expertise.

Would you like to work with us to create better solutions to our shared challenges?

Video: <https://www.youtube.com/watch?v=AMM-5UKuldA>

University of Agder

The University of Agder has more than 1500 employees and almost 14 000 students, making us one of Southern Norway's largest workplaces. Our dedicated staff engage in research, teaching and dissemination across a diverse range of fields. The university is located on two modern campuses in Kristiansand and Grimstad.

Additional information

Place of service:

Gimlemoen 25 4630 Kristiansand S (Kristiansand Municipality)