

Professor of Algebra with Applications in Discrete Mathematics

DTU Compute's Section for Mathematics invites applications for an appointment as Professor of Algebra with Applications in Discrete mathematics. The Section for Mathematics covers mathematical disciplines which have potential for applications within engineering in the broadest sense. Our research spans from pure to applied mathematics and includes collaboration on specific applications with external partners from universities and industry. The teaching covers mathematics at all university levels and is under constant development, in particular with regards to e-learning.

DTU Compute wishes to strengthen its activities in the area of algebra with applications in discrete mathematics. The focus will primarily be on the following areas:

- Algebraic coding theory,
- Algebraic varieties over finite fields,
- Algorithms in function fields and their applications.

The professor will be affiliated with the department's Section for Mathematics and is expected to interact closely with the other faculty members of the section as well as relevant faculty members of the other sections at the department.

Responsibilities and tasks

The position covers research and research-based teaching within algebra with applications in discrete mathematics. The successful applicant will be responsible for strengthening the research in this field at the department and to participate in mathematics teaching at all university levels.

The successful candidate is furthermore expected to:

- Initiate and develop research collaboration within the section and within the department, nationally and internationally.
- Initiate and develop cross-disciplinary research.
- Be visionary in the development of new research fields and alliances.
- Develop and conduct excellent teaching in algebra with applications at all levels at the department, including continuing education activities.
- Be visionary in the development of new curriculum and teaching activities.
- Participate in the teaching and development of introductory mathematics courses.
- Contribute to the international visibility of mathematics at DTU, for instance by organization of international conferences.
- Explore the innovation potential of his/her research, if possible in collaboration with commercial actors.

The successful candidate is expected to take a lead role in teaching at the BSc, MSc and PhD levels. For international candidates, DTU offers Danish language courses for the purpose of being able to teach in Danish within the first 2-3 years.

Qualifications

Successful candidates must document:

- Significant original scientific output at a high international level.
- Cross-disciplinary research collaboration.
- Research experience ranging from basic to applied research.
- Ability to attract external research funding.
- Visibility in the international scientific community.

- Significant experience in the teaching and development of new courses, including the development of high-quality course material.
- The ability to successfully motivate and engage students and spread enthusiasm among them.
- Significant experience in the supervision of students at BSc, MSc, and PhD level.

Assessment

In the assessment of the candidates, consideration will be given to:

- Documented experience and quality of teaching and curriculum development
- Research impact and experience, funding track record and research vision
- Societal impact
- Documented innovation activities, including commercialization and collaboration with industry
- International impact and experience
- Leadership and collaboration
- Communication skills

Consideration will also be given to:

- Experience, quality and breadth in public outreach activities.
- Quality and breadth in research communication.
- Experience in cross-disciplinary research.

We offer

DTU is a leading technical university globally recognized for the excellence of its research, education, innovation and scientific advice. We offer a rewarding and challenging job in an international environment. We strive for academic excellence in an environment characterized by collegial respect and academic freedom tempered by responsibility.

Salary and terms of employment

The appointment will be based on the collective agreement with the Danish Confederation of Professional Associations. The allowance will be agreed upon with the relevant union.

Further information

Further information may be obtained from Head of Department Per B. Brockhoff tel.: +45 4525 6533, perbb@dtu.dk.

You can read more about DTU Compute at www.compute.dtu.dk.

Application procedure

Please submit your online application no later than **XXX 2019 (local time)**. Apply online at www.career.dtu.dk.

Applications must be submitted as **one PDF file** containing all materials to be given consideration. To apply, please open the link 'Apply online', fill out the online application form, and attach **all your materials in English in one PDF file**. The file must include:

- Application (cover letter) addressed to the President
- CV
- A vision for future research
- Teaching and research statement, with a focus on the 'Assessment' bullet points listed above

- Documentation of previous teaching and research, as related to the 'Assessment' bullet points listed above
- List of publications indicating scientific highlights
- H-index, and ORCID (see e.g. <http://orcid.org/>)
- Diploma (MSc/PhD)

Applications and enclosures received after the deadline will not be considered.

All interested candidates irrespective of age, gender, disability, race, religion or ethnic background are encouraged to apply.