



Professor/Associate Professor in Ultra-High Field Magnetic Resonance Physics

About the position

[The Department of Physics](#) at NTNU announces an open position as Professor/Associate Professor in the physics of human ultra-high field magnetic resonance imaging and spectroscopy. The position will be based within the Section for Biophysics and Medical Technology in Department of Physics, but also collaborating with other research groups in Trondheim working on research and clinical applications of ultra-high field MR.

The Section for Biophysics and Medical Technology has extensive research activity within applications of medical imaging, such as ultrasound-mediated drug delivery, clinical applications of multi-photon microscopy, MR-guided radiotherapy and development of MRI methods. This work is facilitated through a strong local collaboration with research groups at Faculty of Medicine and Health Sciences at NTNU as well as St. Olavs Hospital, the University hospital in Trondheim.

[The Norwegian 7T MR Center](#), hosting a whole-body clinical 7T MR scanner, will open in the first half of 2020. The center will be operated in a collaboration between Faculty of Medicine and Health Sciences and Faculty of Natural Science at NTNU and St. Olavs Hospital, and it will also be part of the Norwegian National Infrastructure in Neuroscience, NORBRAIN, headed by Nobel laureate professor Edvard Moser. The initial objective of the 7T MR Center will be to enable high-resolution structure-function brain mapping, both in healthy subjects and different patient groups. The 7T MR Center will be localized at St. Olavs Hospital, enabling patient-oriented clinical and research applications. Additional MR infrastructure at NTNU/St. Olavs Hospital available for research use include a 3T MR scanner and a 3T PET/MR scanner as well as a pre-clinical 7T PET/MR. One should take the advantage of interdisciplinary collaboration with several research groups at NTNU, particularly within neuroscience and cancer imaging, as well as with radiologists and clinicians at St. Olavs Hospital.

The Department of Physics is currently expanding. It has activity in solid-state physics/material physics, soft/complex physics, biopolymer physics, medical physics, astro-particle physics, statistical physics, optics, atmospheric physics and university didactics. The Department recruits the best physics students in Norway and offers many courses in physics for other study programs at NTNU.

The position reports to Head of Department.

Main duties and responsibilities

The successful candidate is expected to initiate, lead and contribute to development of new methods and applications of human 7T MR in partnership with NORBRAIN and other research groups both locally, nationally and internationally. In addition, the candidate is expected to form synergetic connections with the current activities within the Department. He/she will take a leading role in developing this field and setting up a strong research program over the next decades.

The Professor/Associate Professor will have a specific responsibility for teaching courses within medical physics at master and PhD level, but may also be assigned teaching duties in general courses in physics at bachelor level. Furthermore, the applicant is expected to supervise master students, research fellows and doctoral candidates in his/her discipline and to take part in the departmental administrative work.

The candidate should contribute actively to the further development of national and international collaborations of the Section for Biophysics and Medical Technology and the Department of Physics.

The Professor/Associate Professor will be responsible together with other academic staff for managing and developing the Department and the activities within research, teaching and outreach.

Qualification requirements

Candidates must hold a master's degree and a PhD relevant for research within ultra-high field MR physics. Candidates must also document strong research activities in applications of MR imaging and/or spectroscopy, which complement the current research activities in the Section for Biophysics and Medical Technology. The field of research must be relevant for the objectives of the Norwegian 7T MR Center, and the candidate should have a strong interest and experience within interdisciplinary collaboration.

Candidates qualifying for Professor must document research of high, international quality, showing both breadth and depth. Research activity and output must demonstrate an independent research profile and the ability to take up new research issues. Continuous research activity is a prerequisite for professorial positions.

In the evaluation, emphasis will be placed on publication of research results in recognized international journals within the subject area. The greatest emphasis is placed on academic work undertaken during the past five years, excluding statutory leave.

Pedagogical skills and qualifications will be emphasized in the evaluation. Candidates must have a commitment and a vision for teaching and outreach. This includes development of teaching materials, involvement in course and study programme development and governance, as well as supervision of students at all levels. Accordingly, didactical skills, qualifications and potential will be evaluated based on documented experience in teaching, outreach, course and study programme management, supervision of doctoral and master students and related work.

The candidate must demonstrate the ability to initiate and lead research projects, and show a clear potential for acquiring external funding for research and scholarships, both independently and in collaboration with colleagues at the Department, the Faculty and NTNU through national and European funding sources. Hiring levels (Associate Professor and Professor) will be based on documented scientific accomplishments, teaching qualifications and future potential.

Other requirements:

The successful applicant will be expected to deliver high-quality teaching at undergraduate and postgraduate levels, and undertake supervision of Masters and Doctoral candidates. Evaluation of these skills will be based on documented experience and relevant teaching qualifications. Applicants with teaching experience at university level are preferred. Quality and breadth of the teaching qualifications will be evaluated.

Those who do not have formal qualifications in teaching at university level and who cannot provide documentation of equivalent qualifications must complete [an approved pedagogical development programme](#) within two years of appointment.

It is a prerequisite that within three years of appointment, new employees who do not speak a Scandinavian language can demonstrate skills in Norwegian or another Scandinavian language equivalent to level three in the course for Norwegian for speakers of other languages at the Department of Language and Literature at NTNU.

Please see [the Regulations concerning appointment and promotion to teaching and research posts](#) for general criteria for the position. NTNU is committed to following evaluation criteria for research quality according to [The San Francisco Declaration on Research Assessment - DORA](#).

Personal characteristics

- Is a team-player
- Is solution oriented
- Is quality oriented
- Can take initiative
- Can motivate students and co-workers

In the assessment of the best qualified applicant, education, experience and personal suitability will be emphasized, as well as motivation for the position.

We offer

- exciting and stimulating tasks in a strong international academic environment
- an open and inclusive work environment with dedicated colleagues
- favourable terms in the [Norwegian Public Service Pension Fund](#)
- [employee benefits](#)
- [Tailored relocation and onboarding services](#) for international applicants

Salary and conditions

The position as Professor/Associate Professor comes with a starting package for new research staff, opportunities for mentoring and is remunerated according to the Norwegian State salary scale. There is a 2% deduction for an obligatory premium to the Norwegian Public Service Pension Fund. Members of the Norwegian Public Service Pension Fund are offered a generous pension for life and access to favourable housing loan and insurance schemes.

It is required that the newly appointed member of staff takes up residence in Trondheim or nearby. [Trondheim](#) offers great opportunities for education (including international schools) and possibilities to enjoy nature, culture and family life. Having a population of 200,000, Trondheim is a small city by international standards with low crime rates and little pollution. It also has easy access to a beautiful countryside with mountains and a dramatic coastline as well as good airway connections to mayor cities in northern Europe.

Norway has generous conditions regarding both maternity and paternity leave. Professional subsidized day-care for children is easily available.

The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants, and the acts relating to Control of the Export of Strategic Goods, Services and Technology. Candidates who by assessment of the application and attachment are seen to conflict with the criterias in the latter law will be prohibited from recruitment to NTNU. After the appointment you must assume that there may be changes in the area of work.

About the application

The application and description of the academic works to be used as the basis for the assessment must be in English.

The application must include:

- CV, including list of publications with bibliographical references, and contact details for three referees
- Testimonials and certificates
- The most relevant publications - published or unpublished - that has relevance to the evaluation of the applicant's qualifications (maximum 10)
- Research plan (maximum 10 pages), divided into:
 - A statement of the research interests of the candidate (maximum 5 lines)
 - A statement on long-term research goals in a 10-15 year perspective, which includes a discussion on connection to previous work, outlines possible collaborations and includes a rough plan on how funding should be achieved for this activity (not more than 2 pages).
 - A 5-year plan outlining actual research to be performed and possible funding schemes for these plans (not more than 7 pages).

- Description of teaching qualifications based on a list of factors ("[Documentation of applicant's teaching qualifications in connection with appointment to an academic position at NTNU](#)").
- Other documents which the applicant would like to present
- If relevant, a list of supervised projects with information on funding agency, years of duration and the funds received
- Details of projects for which you have been project manager, with information about funding, duration and size

Joint works will be considered. If it is difficult to identify your contribution to joint works, you must attach a brief description of your participation.

When the application deadline has passed, a shortlisting committee will evaluate all applications. The best qualified applicants will then be considered by an external appointments panel and the most suitable applicants will be invited to interview and to deliver a lecture.

General information

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background. NTNU wishes to increase the proportion of women in its academic positions, and women are therefore encouraged to apply. [Initiatives aimed at increasing the proportion of women](#) in higher academic positions, including starting packages, mentoring programmes and qualification fellowships may be applicable for female candidates.

Under the Freedom of Information Act (offentleglova), information about the applicant may be made public even if the applicant has requested not to have their name entered on the list of applicants.

General questions about the position can be directed to the Head of Department, Prof. [Erik Wahlström](#). Specific questions about the Section for Biophysics and Medical Technology to Prof. [Bjørn Torger Stokke](#), and about the 7T MR Center to Associate prof. [Pål Erik Goa](#).

Submit your application with your CV and attachments via [jobbnorge.no](#). Applicants invited for interview must bring certified copies of certificates and diplomas. Mark the application with reference number: 19/69.

Deadline for applications: 10.09.2019

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The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.

Department of Physics

Our research and teaching are both experimental and theoretical, covering a wide range of disciplines. Our activities contribute to development of new medical technology and to finding solutions for the next generation's communication technology, energy utilization and development of materials. [The Department of Physics](#) is one of eight departments in the [Faculty of Natural Sciences](#).

Jobbnorge-ID: 171857, Søknadsfrist: Søknadsfristen er gått ut