Nazwa jednostki: Faculty of Physics, Astronomy and Informatics at Nicolaus Copernicus University in Toruń

Nazwa stanowiska: PhD Scholarship

**Wymagania:**
The successful candidate should hold a Master's degree in Condensed Matter Physics, Materials Physics, Theoretical Chemistry, or a closely related field, with excellent academic performance. A solid understanding of quantum mechanics, solid-state physics and basic electronic structure theory is required. Prior experience with electronic structure codes is an advantage, particularly with all-electron codes. Research projects and theses focused on electronic structure calculations, statistical physics, or many-body physics will be considered an asset. Scientific publications are not mandatory, but will be regarded as a plus if of high quality. The ability to communicate in English is required, while proficiency may be considered an advantage. The candidate should be able to work both independently and as part of a research team.

**Opis zadań:**
Key responsibilities will include:
1. employing ab-initio electronic structure theory to determine the intra-atomic exchange coupling in selected systems containing rare-earth elements;
2. contributing to theoretical development, software implementation, or numerical simulations, depending on the candidate's background and proclivities;
3. actively collaborating with other project members and international partners;
4. preparing scientific reports and drafting manuscripts under the guidance of the Principal Investigator;
5. disseminating research results through journal articles and conference presentations.
Additional responsibilities may be assigned during the course of the research project, depending on the evolving scientific context and the candidate's doctoral progress. These changes will be at the reasonable discretion of the Principal Investigator.

Typ konkursu NCN: OPUS 28“ ST
Termin składania ofert: 1 wrzenia 2025, 16:00
Forma składania ofert: email

**Warunki zatrudnienia:**
Applications are invited for a doctoral position in the Department of Quantum Physics at Nicolaus Copernicus University in Toruń„ as a member of the research project "Complex magnetism in rare-earth systems", financed by the OPUS-28 grant no. 2024/55/B/ST3/03214 funded by the National Science Centre. The successful candidate will join the group of the Principal Investigator dr. Igor Di Marco, prof UMK, and specialize in electronic structure theory and theoretical magnetism. The doctoral research will mainly focus on the intra-atomic exchange coupling in systems containing rare-earth elements. Collaboration and scientific exchange with foreign universities in the Netherlands and Sweden is expected, and further opportunities may arise during the project.
Remuneration: 60.000 PLN per year
Maximum period of hiring: 48 months

Suggested starting date: 01.10.2025 (a delay of a few months may be possible)
Perks: international working environment, international internships in high-profile institutions, summer schools and conferences

Dodatkowe informacje:
The candidate should prepare an application including the following documents:
1) a brief cover letter (max 2 pages) including contact information of at least one professional reference (preferably the thesis supervisor);
2) a CV with publication list (if any);
3) a copy of the Master's diploma or certificate;
4) a transcript of university courses and grades (preferably but not necessarily official);
5) a signed statement of consent for processing personal data as follows: "I hereby give consent for my personal data included in my application to be processed for the purposes of the recruitment process under the Personal Data Protection Act as of 10 May 2018 (consolidated text: Journal of Laws 2019, item 1781) and pursuant to art. 6§1a GDPR (General Data Protection Regulation - EU2016/679)."

Please merge all documents in the order listed above in a single PDF file and send by e-mail to igor.dimarco@umk.pl with the subject line "OPUS-28 PhD application".

Applications will be processed until **01.09.2025.** Selected candidates will be informed by e-mail. We reserve the right not to select any candidates and eventually reopen the call at a later time. For more details and inquiries please contact the project leader directly by email: igor.dimarco@umk.pl