Opening for a Postdoc (Adjunct) position in the Quantum Information and Inference laboratory (QI^2-lab), Centre of New Technologies at the University of Warsaw

The Quantum Information and Inference laboratory (QI^2-lab) offers a postdoctoral position within the project C'MON-QSENS! (*Continuously Monitored Quantum Sensors: Smart Tools and Applications*) funded by QuantERA EU program in Quantum Technologies.

QI^2-lab forms a part of the Centre for Quantum Optical Technologies (QOT IRA Unit) at the University of Warsaw, which currently consists of three theoretical and one experimental group that closely collaborate in research. The successful candidate will work under supervision of Jan Kolodynski (lab leader) in close collaboration (long-term visits, also to experimental teams, are fully supported financially and encouraged) with other members of the C'MON-QSENS! QuantERA Consortium, as well as other groups building atomic sensors, in particular, optical magnetometers.

The researcher will conduct theoretical work on state-of-the-art quantum dynamical models of hot (also multi-species) atomic sensors that include dominant decoherence and collision (e.g. spin-exchange) mechanisms, when measured continuously with light. In case of candidate's inclination more towards numerical analysis and her/his software-development experience, the project may also involve preparation of numerical simulations (quantum trajectories, Monte-Carlo) of atomic sensors operating in real time, as well as development of data-interference and signal-processing tools necessary. Collaboration with experimental groups is mandatory.

Candidates should have a PhD degree in physics or a related area, with background in quantum optics and/or atomic, molecular and optical physics. The degree must have been obtained not earlier than 7 years before the employment in the project.

Position starts on May 4th, 2021 or later. Maximum period of stipend contract is 2 years (+1 year extension option). Interested applicants are encouraged to address their enquiries to Jan Kolodynski by e-mail: jan.kolodynski@cent.uw.edu.pl.

The competition is open to persons who meet the conditions specified in:
Act of 20 July 2018 Law on higher education and science (Journal of Laws of 2018, item 1668, as amended) and the Statutes of the University of Warsaw; *Regulations on the allocation of resources for the implementation of tasks financed by the National Centre of Science for QuantERA 2019 grant*.