POSTDOCTORAL POSITION IN THEORETICAL QUANTUM OPTICS IN BUDAPEST

The Project — The Quantum Optics Group of the Wigner Research Centre for Physics in Budapest is looking for a motivated postdoctoral fellow to perform theoretical research in the frame of a European FET-OPEN project. The consortium envisions the development of a robust, integrated, atom-photon-based sensor for quantum technology applications. The postdoctoral fellow contributes to the joint effort by theoretical work on cavity quantum electrodynamics, in particular, on the design of nano-structured optical waveguides to tailor the interaction of ultracold atoms with two-dimensionally confined electromagnetic fields at the quantum level.

The Host — The Quantum Optics group, led by Prof. Peter Domokos, has both experimental and theoretical activities in the research field of cavity QED with cold atoms in optical resonators. It holds major grants at the national level aiming at the development of quantum technologies. The group comprises about 10 researchers and creates a friendly and stimulating environment for young researchers. Budapest is a big capital with extraordinary quality of cultural life at an affordable cost level.

The Candidate — The candidate must have an internationally recognised PhD degree, and must have good experience in numerical calculations. The basic required knowledge is electrodynamics and quantum mechanics. Expertise in quantum optics with atoms and photons is an advantage. Good command of the English language is necessary.

The applicants should submit their applications via email to Peter Domokos (domokos.peter@wigner.hu), with the subject line "CRYST3 application", and include

1. CV (including the full list of publications and contact information of two referees);
2. A short motivation letter (including an introduction of the applicant, previous research works, and future plans).

The applications will be considered until the position is filled. The beginning date of the position can be 1 of March 2021. Informal inquiries are also welcome.

The Wigner Research Centre for Physics is an equal opportunity institution.