

# Postdoc with Ge devices focus Research Group Katsaros

Full Time

| Klosterneuburg (Vienna), Austria

| € 57.680 gross/year\*

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## Postdoc position focus Hybrid semiconducting-superconducting Ge devices

In the past decade, there has been a huge wave of excitement in the prospect of realizing topological qubits for quantum computation. Such qubits are predicted to be robust versus decoherence. In the main focus of these proposals are the so-called Majorana zero modes. By now various groups have reported signatures of Majorana zero modes by typically using proximitized III-V nanowires. However, the origin of the observed zero bias peaks is highly debated. One of the reasons is that the induced in-gap states appearing when a magnetic field is applied makes the interpretation of the experimental data more difficult.

Several works which were published in the past few years pointed out that planar Josephson junctions can be used for reaching the topological regime at low magnetic fields by applying a phase difference between the two superconductors. In the **Nanoelectronics group of Georgios Katsaros** we aim to use Ge hole gases as a 2D platform, for which we have recently demonstrated proximity induced superconductivity, to investigate such ideas. More information: [nanoelectronicsgroup.wordpress.com](http://nanoelectronicsgroup.wordpress.com)

## Your profile

- PhD and solid background in the following areas: superconductivity and low temperature physics
- Excellent track record in semiconductor-superconductor devices
- Excellent communication and presentation skills
- High motivation and ability to work closely with scientists of other disciplines
- Excellent command of English (working language)
- A proven ability to conduct independent research, as well as to work effectively as a member of a research team

**Application documents:** motivation letter, CV and two reference letters; **flexible start date**

**To submit your application please email:** [georgios.katsaros@ist.ac.at](mailto:georgios.katsaros@ist.ac.at)

\* This position comes with possible overpayment depending on education, qualification and work experience. IST Austria processes your personal data in accordance with the law. For more information, please refer to [www.ist.ac.at/data-protection](http://www.ist.ac.at/data-protection).

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