

## PERSONAL INFORMATION

**Sticleț Doru Cristian**

📍 67-103 Donat St., 400293 Cluj-Napoca, Romania

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📅 Date of birth 12/09/1980 | 🇷🇴 Nationality Romanian

## WORK EXPERIENCE

2017 -

**Scientific researcher**

INCDTIM, Romania

2014 - 2017

**Postdoctoral researcher**

TU Delft, The Netherlands

- Advisor: A. Akhmerov

2012 - 2014

**Postdoctoral researcher**

Université de Bordeaux, France

- Advisor: J. Cayssol

MPIPKS, Dresden, Germany

- Scientific visitor for a period of 8 months in the group: *Topological band structure and their instabilities*.

2009 - 2012

**PhD**

Laboratoire de Physique des Solides, Université Paris-Sud, France

- PhD Thesis: [Edge states in Chern insulators and Majorana fermions in topological superconductors](#)

- Advisor: P. Simon

## EDUCATION AND TRAINING

2007 - 2009

**Master in theoretical physics**

Universiteit Utrecht, The Netherlands

- Master thesis: *Signatures of phase transitions in a two-dimensional ultracold molecular dipolar Fermi gas*

- Advisor: H.T.C. Stoof

2003 - 2007

**BSc in physics and computer science**

Universitatea Babeș-Bolyai, Cluj-Napoca

- Bachelor thesis: *Excitații colective la suprafața membranelor celulare*

- Advisor: I. Grosu

1999 - 2003

**BA in philosophy**

Universitatea Babeș-Bolyai, Cluj-Napoca

## PERSONAL SKILLS

Mother tongue

Romanian

Other language

English, French

- Job-related skills**
- Band structures for topological insulators. Quantum Hall effect and anomalous Hall effect in tight-binding electronic lattices. Berry phases and topological invariants.
  - Quantum transport in nanostructures. Using KWANT software to study electronic band structure and quantum transport.
  - Superconductors and proximity effect of superconductors. Persistent currents, Andreev reflection, Josephson junctions. Majorana fermions in hybrid semiconductor-superconductor structures.
- Teaching experience**
- Assistant teacher at TU Delft in two courses: Advanced Statistical Physics and Applications of Quantum Mechanics.
  - Co-advisor to bachelor thesis of R. ter Hoeven, *The Kernel Polynomial Method applied to tight-binding systems with time-dependence*.
  - Pedagogical training at UBB Cluj.
- Digital competence**
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- Programming languages: Python, C/C++, C#, Java
  - Various scientific software to analyze and display data in Linux and Windows
  - Program for symbolic and numerical calculus: Mathematica, Matlab
  - BA in computer science from UBB Cluj
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- Scientific indicators**
- 14 articles with 330 citations (319 without self citation)
  - 11 articles as first author
  - h-index: 8