

curriculum vitae Stefaan Cottenier



personal data and contact info:

First name: Stefaan
Family name: Cottenier
Date and place of birth: January 1, 1971 -- Kortrijk (Belgium)
Contact info (office) : Stefaan.Cottenier@ugent.be

short bio:

Stefaan Cottenier got his PhD in 1997 from the Institute for Nuclear and Radiation Physics (KU Leuven, Belgium). He kept working there until 2007, gradually evolving from experimental nuclear condensed matter research to computational research. After a one-year stay at a computational materials engineering group at RWTH Aachen University, he joined in 2008 the Center for Molecular Modeling at Ghent University. Since 2011, he holds the OCAS-endowed chair in the Department of Materials Science and Engineering. His research mission is to apply methods that have originally been developed in the theoretical condensed matter community to problems that are relevant for materials science. He has a special interest in the methodology of teaching, and uses insights from this field to train new generations of materials scientists in the use of quantum-based simulation tools for solids.

publications, conferences and international stays:

105 publications in international, peer-reviewed journals (A1)
134 oral contributions in international conferences and workshops (65 invited)

A Youtube channel with a selection of Stefaan's conference presentations is available at <https://bit.ly/cottenier>.

Stefaan maintains two free and open online courses that are available all year round for self-paced study, and once per year in supervised mode in sync with the teaching terms at Ghent University:

- www.compmatphys.org : on applying density functional theory to crystalline matter
- www.hyperfinecourse.org : on hyperfine interaction physics and experimental methods based thereupon

3 main publications:

- Reproducibility in density functional theory calculations of solids
Kurt Lejaeghere, ... (67 others), ... and Stefaan Cottenier
Science 351 (2016) aad3000
<https://dx.doi.org/10.1126/science.aad3000> [impact factor 34.6, 596 citations]
- The Magnetization of γ' -Fe₄N: theory vs. experiment
Eitel L. Peltzer y Blancá, Judith Desimoni, Niels E. Christensen, Heike Emmerich, Stefaan Cottenier
Physica Status Solidi B 246 (2009) 909-928 (20p) [impact factor 1.071, 66 citations]
- Density Functional Theory and the Family of (L)APW Methods: a step-by-step introduction
S. Cottenier
Instituut voor Kern- en Stralingsfysica, K.U.Leuven, Belgium (2002)
70 pages, ISBN 90-807215-1-4 (freely available at http://www.wien2k.at/reg_user/textbooks)
(e-book – 439 citations and +50.000 downloads)