

PhD accomplishments

Published papers

- M. Twengström, L. Bovo, M. J. P. Gingras, S. T. Bramwell, and P. Henelius, *Microscopic aspects of magnetic lattice demagnetizing factors*, Phys. Rev. Materials **1**, 044406 (2017). DOI:[10.1103/PhysRevMaterials.1.044406](https://doi.org/10.1103/PhysRevMaterials.1.044406)
- L. Bovo, M. Twengström, O. A. Petrenko, T. Fennell, M. J. P. Gingras, S. T. Bramwell, P. Henelius, *Special temperatures in frustrated ferromagnet*, Nature Communications, **9**, 1999 (2018). DOI:[10.1038/s41467-018-04297-3](https://doi.org/10.1038/s41467-018-04297-3)
- S. R. Giblin, M. Twengström, L. Bovo, M. Ruminy, M. Bartkowiak, P. Manuel, J. C. Andresen, D. Prabhakaran, G. Balakrishnan, E. Pomjakushina, C. Paulsen, E. Lhotel, L. Keller, M. Frontzek, S. C. Capelli, O. Zaharko, P. A. McClarty, S. T. Bramwell, P. Henelius, and T. Fennell, *Pauling Entropy, Metastability, and Equilibrium in Dy₂Ti₂O₇ Spin Ice*, Phys. Rev. Letters **121**, 067202 (2018). DOI:[10.1103/PhysRevLett.121.067202](https://doi.org/10.1103/PhysRevLett.121.067202)

Conferences, schools and workshops

- Workshop on *Novel Directions in Frustrated and Critical Magnetism* 14 July - 08 August 2014 at NORDITA, Stockholm, Sweden.
- Theory Winter School on *New Trends in Frustrated Magnetism* 5-9 January 2015 at the National High Magnetic Field Laboratory in Tallahassee, Florida. Poster presentation of my research on *Magnetic Susceptibility in Spin Ice*.
- Presentation of my research on *Magnetic Susceptibility in Spin Ice* at the American Physical Society March Meeting 2-6 March 2015 in San Antonio, Texas.
- Participated in a neutron scattering experiment 8-15 June 2015 at the Paul Scherrer Institute in Villigen/Zürich, Switzerland. Presentation of my visit and the experimental results, titled: *Neutron scattering-A theorist's journey to PSI Switzerland*.
- Presentation of my research on *Demagnetisation Effects in Dipolar Systems* at the International Chemical Congress of Pacific Basin Societies Pacificchem conference 15-20 December 2015 in Honolulu, Hawai'i.
- Presentation of my research on *Diffuse neutron scattering of Dy₂Ti₂O₇ revisited* at the American Physical Society March Meeting 14-18 March 2016 in Baltimore, Maryland.
- Presentation of my research on *Magnetic Correlations of Spin Ice and Demagnetising Factors for Magnetic Lattices* at the Highly Frustrated Magnetism conference 7-11 September 2016 in Taipei, Taiwan.
- Presentation of my *research in connection with neutron scattering* at the Swedish Neutron Scattering Society meeting 15-16 May 2017 in Uppsala, Sweden.
- Invited presentation of *my research and how I use High Performance Computing in my research* at PDC (ParallellDatorCentrum) at KTH 24 May 2017 in Stockholm, Sweden.

- Invited presentation of *my research and why basic research is important in engineering* at International Engineering Science Consortium at KTH 20-21 June 2017 in Stockholm, Sweden.
- Poster presentation of my research on *Special temperatures in frustrated ferromagnets* at the Highly Frustrated Magnetism conference 9-14 July 2018 in Davis, California.

Scholarships and research grants

- Olle Eriksson foundation, 18 400 SEK, October 2014. Travel scholarship to go to the Theory Winter School on New Trends in Frustrated Magnetism 5-9 January 2015 in Tallahassee, Florida
- Olle Eriksson foundation, 25 000 SEK, December 2014. Travel scholarship to go to the APS March meeting 2-6 March 2015 in San Antonio, Texas.
- Stiftelsen Olle Engkvist Byggmästare, 140 000 SEK, January 2015. Grant for pursuing research on spin ices, to be used for buying a computational cluster.
- Stiftelsen ÅForsk, 25 000 SEK, March 2015. Travel scholarship to go to the conference Pacificchem 15-20 December 2015 in Honolulu, Hawaii.
- Styffes stiftelse, 9 000 SEK, April 2015. Travel scholarship to go to the Paul Scherrer Institute during the summer 2015 to participate in a neutron scattering experiment in Switzerland, Villigen/Zürich.
- Stiftelsen Lars Hiertas Minne, 20 000 SEK, November 2015. Travel scholarship to go to the APS March meeting 14-18 March 2016 in Baltimore, Maryland.
- Gälöstiftelsen, 28 000 SEK, Mars 2016. Travel scholarship to go to the Highly Frustrated Magnetism (HFM) conference 7-11 September 2016 in Taipei, Taiwan.
- Stiftelsen Olle Engkvist Byggmästare, 1 300 000 SEK, January 2018. Personal research grant to perform research in the field of frustrated magnetism at KTH.
- Gälöstiftelsen, 20 000 SEK, April 2018. Travel scholarship to go to the Highly Frustrated Magnetism (HFM) conference 9-14 July 2018 in Davis, California.

Commitments

- I was the PhD-student representative on the institution board at the Physics departments at KTH, AlbaNova (2016 and 2017).