Date: August 30, 2017

CURRICULUM VITAE - Prof Ineke De Moortel, FRSE

Personal Details

Affiliation:	School of Mathematics & Statistics, University of St Andrews
Email:	ineke.demoortel@st-andrews.ac.uk
Current Appointment:	Professor in Applied Mathematics (Solar Physics)

Qualifications

- Ph.D. Solar Physics (2001), University of St Andrews (Supervisor Prof A.W. Hood)
  (Thesis entitled *"Theoretical & Observational Aspects of Wave Propagation in the Solar Corona"*)
- Master in Mathematics, Magna cum Laude Diploma (1997), KU Leuven (Belgium)
- Teaching Qualification (1997), KU Leuven (Belgium)

Professional History

2013 - present	Professor, Univ of St Andrews
2013 - present	Affiliate Scientist, High Altitude Observatory, Boulder (US)
2008 - 2013	Reader (Associate Professor), Univ of St Andrews
2004 - 2013	Royal Society University Research Fellow, Univ of St Andrews (PI I. De Moortel)
2001 - 2004	PPARC (now STFC) Postdoctoral Research Fellow, Univ of St Andrews (PI I. De Moortel)

⋆ *Maternity leave: Jul-Oct 2008 and Apr-Jul 2010 (working part time Nov-Dec 2008 and Aug-Sep 2010)*

Prizes, Awards & Fellowships

- 2015 Fellow of the Royal Society of Edinburgh
- 2014 Rosalind Franklin (previously Lord Kelvin) Award Lecture on "Our Dynamical Sun: A 21st Century View" presented at the British Science Festival (Birmingham, 11 Sept 2014)
- 2012 Elected as a founding member (and subsequently co-chair) of the RSE Young Academy of Scotland
- 2010 Royal Astronomical Society Fowler Award for 'Geophysics' (including Solar System Science); awarded in recognition of *'your significant and innovative contributions to solar physics'*.
  http://www.ras.org.uk/awards-and-grants/awards/269?task=view
- 2009 Phillip Leverhulme Prize in Astronomy and Astrophysics (The Leverhulme Trust awards a prize of £70,000 to *'outstanding scholars who have made a substantial and recognised contribution to their particular field of study, recognised at an international level, and whose future contributions are held to be of correspondingly high promise.'*
  http://www.leverhulme.ac.uk/templates/asset-relay.cfm?frmAssetFileID=365
- 2004 Royal Society University Research Fellowship (+ extension in 2009)
- 2001 PPARC Postdoctoral Research Fellowship

Other Appointments

- *Key External Appointments*
  - Vice-President (President Elect) of the Edinburgh Mathematical Society (2016/17) - President from 1 Oct 2017
  - Editorial Board Member Royal Society Philosophical Transactions A (from 2016)
  - Secretary of the European Solar Physics Division (Elected 2011)
  - Chair of the UK-DKIST Development & Operations Board (since 2015)
  - Co-Chair of The RSE Young Academy of Scotland (April 2012 - Dec 2014)
  - Deputy Chair of the UK Solar Physics Community (2010-2013)

- *Membership of Professional Bodies*
  - Fellow of the Royal Society of Edinburgh (Elected 2015)
  - Member of The RSE Young Academy of Scotland (Elected 2011-2015)
  - Member of the European Physics Society (Since 2011)
  - Fellow of the Royal Astronomical Society (Elected 2003)

- *Membership of Advisory Bodies & Committees*
  - Irish Laureate panel (from 2017)
  - Royal Astronomical Society ÔGÕ Awards Committee (from 2017)

  - STFC Solar Physics Facilities Review panel (2017)
  - RSE Sectional Committee (Informatics, Mathematics and Statistics) (from 2016)
  - UK Space Agency (prev. STFC/PPARC) Post-Launch Support Committee (from 2006)
  - Scientific Advisory Board for several proposed satellite missions and observational facilities - COSMO (from 2012); SPARK (from 2012) and PROBA-3 (from 2011)
  - Associated-Investigator on the Solar Dynamics Observatory (SDO) (from 2005)
  - Judge on the Royal Society Photography competition (2017)
  - RSE Sectional Committee (Informatics, Mathematics and Statistics) (since 2016)
  - Member (2016/17) and Chair (2017) of Polish National Science Centre expert panel
  - UKSA Operations Review Panel (2015/16)
  - STFC Ernest Rutherford Fellowships panel (2011-2015) - chair of the Near Universe sub-panel (2012-2015)
  - STFC Education, Training and Careers Committee (2012-2015)
  - RSE Cormack Bequest Committee (since 2012)
  - RSE Events Committee (since 2012)
  - Trustee of the RSE Young Academy of Scotland SCIO (2012-2014)
  - Scientific Advisory Board for COSMO (since 2012), SPARK (since 2012) and PROBA-3 (since 2011)
  - UK Solar Physics Council (2008-2014)
  - Associated-Investigator on the *Solar Dynamics Observatory* (SDO) (since 2005)
  - Royal Society International Grants Panel (2008-2011)
  - NASA Heliospheric Grants Panels (2010; 2015)

- *Editorship*
  - Co-Editor of proceedings of the 5th Hinode Meeting, "Exploring the Active Sun", Astron. Soc. of the Pacific Conf. Series 456 (2012)
  - Guest Editor for a Royal Society Philosophical Transactions A Issue, "New approaches in Coronal Heating", published June 2015.
  - Co-Editor of "Academic Women Now: experiences of mid-career academic women in Scotland", published June 2016

- *Peer Review Activities*
  - Referee for STFC (prev. PPARC) standard and rolling grant proposals (since 2006)
  - Referee 4-6 journal papers per year

- *Current University Appointments - School of Mathematics & Statistics*
  - Deputy Head of School (since 2015)
  - Director of Research and member of the School Management Group (since 2014)
  - Athena Swan Coordinator (2012-2014; 2017)
  - Member of the School's Diversity & Equality committee (since 2012)
  - Adviser of Studies (2007-2015)
  - School of Mathematics Study-Abroad coordinator (2006-2013)
  - Member of the School's Undergraduate Teaching Committee (2006-2015)

- *Meetings*
  - Regular member of Scientific Organising Committees for major international conferences
  - Chair of a Royal Society Theo Murphy Discussion Meeting (26-27Aug 2014)
  - Chair of the NAM/UKSP2013 Scientific Organising Committee (St Andrews, Jul 2013)
  - Chair of the 'Hinode 6' Local Organising Committee (St Andrews, Aug 2012)
  - Chair of a Royal Society International Scientific Seminar (6-7 Jan 2011)
  - (Co-)Chair of several Royal Astronomical Society Discussion Meeting (2006/2008/2009/2018)
  - Co-Chair of the 'SOHO15' local organising committee (St Andrews, Sep 2004)

Publications - *http://www-solar.mcs.st-and.ac.uk/ ineke/publications.html*

- Total publications: 75 refereed publications (31 as first author)
- Citations: - **H-index: 30 (ADS) ; 29 (WoS)** - 15 as first author
  - total number of citations: > 2300
  - 5 papers with more than 100 citations (4 of which as 1st author)

Presentations

- Total number of external presentations (since 1998): 110 (including 53 invited reviews, seminars, plenaries)
- Recent Invited Reviews & Seminars: *(15 in last 5 years)*
  - Plenary talk at the UK National Astronomy Meeting (Nottingham, Jun 2015)
  - Invited Review talk at the European Plasma Physics Meeting (Lisbon, Jun 2015), SOLARNET4 (Lanzarote, Jan 2017), Loops-8 (Palermo, Jun 2016)
  - Seminars in Cambridge, Leicester, Birmingham, Lockheed Martin Solar & Astrophysics Lab, National Astronomical Observatory of Japan, Stockholm, Krakov, QMUL

Teaching & Supervision

- *Undergraduate:* courses on Vector Calculus, Numerical Analysis, Differential Equations, Classical Mechanics and Solar Physics
- *Postgraduate:* SMSTC course on MHD theory; Summer schools; Directed reading; Data analysis projects
- *Undergraduate Supervision:* Supervised undergraduate senior honours (BSc and MMath) and summer vacation projects since 2001
- *PhD Supervision:* 10, of which 5 completed on time, 1 completed despite long term illness and 4 are current students.
- *Postdoc Supervision:* 8 since 2007

Public Understanding of Science

I regularly give public lectures to a wide range of audiences. Recent examples include visits to local primary schools, a talk at the 2017 Florence Nightingale Day at Lancashire University, a public outreach event organised by Dame Jocelyn Bell-Burnell at Sanquhar (Jun 2016), a lecture to our own Maths StudentsÕ Society SUMS (Apr 2016) and the St Andrews Probus Society (Jan 2015). I was awarded the 2014 Rosalind Franklin (previously Lord Kelvin) Award Lecture on "Our Dynamical Sun: A 21st Century View" presented at the British Science Festival (Birmingham, 11 Sept 2014).

Grants & External Funding Overview

- **PI**
  - £ 7,500 - STFC Impact Acceleration Award (2016-2017)
  - £ 1,333,333 - ERC Consolidator Grant (€2M) (2015 - 2020)
  - £ 39,035 - STFC Detector Development for the Advanced technology Solar Telescope (2014-2018)
  - £ 950 RSE Visitor travel grant (2014)
  - £ 416,056 - Royal Society University Research Fellowship (2004 - 2013)
  - £ 70,000 - Philip Leverhulme Prize (2010 - 2013)
  - £ 4,521 - Royal Society International Scientific Seminar (2011)
  - £ 115,417 - Leverhulme Trust Research Grant (2007-2010)
  - £ 83,967 - EPSRC CASE Postgraduate Studentship (2007 - 2011)
  - £ 67,595 - PPARC CASE Postgraduate Studentship (2006 - 2009)
  - £ 88,184 - PPARC postdoctoral Fellowship (2001-2004)

- **Co-I**
  - £ 1,058,724 - Co-I. on STFC Consolidated Grant: Hood, A.W., De Moortel, I., Wright, A.N., Archontis, V., Parnell, C.E., Neukirch, T. & Mackay, D.H. (2016-2019)
  - £ 752,478 - Co-I. on STFC Consolidated Grant: Hood, A.W., Cargill, P., De Moortel, I., Wright, A.N., Archontis, V., Priest, E.R., Parnell, C.E., Neukirch, T. & Mackay, D.H. (2013 - 2016)
  - £ 196,989 - Co-I. on STFC Consolidated Grant: Hood, A.W., De Moortel, I., Priest, E.R. & Parnell, C.E. (2013 - 2015)
  - £ 1,284,093 - Co-I. on STFC Rolling Grant: Hood, A.W., Roberts, B., De Moortel, I., Mackay, D.H., Neukirch, T., Parnell, C.E. & Wright, A.N. (2010 - 2013)

– £ 14,912 - CoI PPARC grant for Solar System virtual visitors centre - PI: Dr J.A. Wild (Lancaster University) (2006 - 2008)

Key Academic Achievements

My work has been at the forefront of coronal physics, in particular in the fields of coronal heating and coronal seismology. My research focuses on the dynamical processes occurring in the Sun's atmosphere, investigating the behaviour and interaction of MHD waves and oscillations in 3D geometries, using observations, numerical simulations and analytical modelling. I am particularly interested in developing self-consistent models of coronal heating and forward modelling (creating synthetic observations) to allow robust comparisons between theoretical and numerical results and high-resolution solar observations.

I did the first comprehensive study of travelling intensity fluctuations in coronal loops and was a leader in the use of wavelet analysis for solar studies, which has since become an important and widely used tool in the community. I undertook a series of theoretical investigations interpreting observed intensity fluctuations observed to propagate along coronal loops as slow mode (sound) waves and demonstrated that thermal conduction can naturally explain the observed rapid damping. Using advanced 3D numerical simulations I have examined reconnection driven by different types of surface footpoint motions as well as the behaviour of MHD waves in realistic magnetic configurations. My forward modelling work has demonstrated the important consequences of line-of-sight integration due to the optically thin nature of the solar atmosphere.

Publication List August 2017 - Prof Ineke De Moortel

Number of refereed publications: 75 (31 first author)
Citations (ADS & WoS): Since 2013 - more than 1200 Total to date - more than 2300
Average number of citations: 30.64 H-index: 30 (ADS) / 29 (WoS)

‡‡ One papers with more than 200 citations
‡ Four papers with more than 100 citations
† Ten papers with more than 50 citations
$^{+}$ Invited Review articles

Convention in Solar Physics is that the order of authors corresponds to the amount of work done by the co-authors on the paper. Normally the first author will have originated the idea(s), led the research and written most of the paper. An exception to this is papers authored by PhD students, where, typically, the student will have done most of the work but under the direction and guidance of the supervisor, who will have suggested the research topic and relevant methods required for the analysis. To distinguish such papers, names of PhD students are given in italics.

Refereed Journal Publications

1. Antolin, P., Schmit, D., Pereira, T.M.D., De Pontieu, B., **De Moortel, I.**, "Transverse wave induced Kelvin-Helmholtz rolls in spicules", Astrophys. J., submitted (2017)
2. Threlfall, J.W., **De Moortel, I.**, Conlon, T.,"Above the noise; the search for periodicities in the inner heliosphere", Solar Physics submitted (2017)
3. *Howson, T.A.*, **De Moortel, I.**, Antolin, P.,"Energetics of the Kelvin-Helmholtz instability induced by transverse waves in twisted coronal loops", Astron. & Astrophys., in press (2017)
4. *Johnston, C.D.*, Hood, A.W., Cargill, P.J., **De Moortel, I.**, "A new approach for modelling chromospheric evaporation in response to enhanced coronal heating: II Non-uniform heating", Astron. & Astrophys., in press (2017)
5. De Pontieu, B., **De Moortel, I.**, Martinez-Sykora, J.,McIntosh, S.,"Observations and Numerical Models of Solar Coronal Heating Associated with Spicules", Astrophys. J. Letters 845, L18 (2017)
6. *Howson, T.A.*, **De Moortel, I.**, Antolin, P.,"The effects of resistivity and viscosity on the Kelvin-Helmholtz instability in oscillating coronal loops", Astron. & Astrophys. 602, A74 (2017)
7. Pagano, P., **De Moortel, I.**,"Contribution of mode coupling and phase-mixing of AlfvŐn waves to coronal heating", Astron. & Astrophys. 601, A107 (2017)
8. Antolin, P., **De Moortel, I.**, Van Doorsselaere, T.,Yokoyama,T., "Observational Signatures of Transverse MHD Waves and Associated Dynamic Instabilities in Coronal Flux Tubes", Astrophys. J. 836, 219 (2017)
9. Fisher, C.E., Müller, D., **De Moortel, I.**, "JPEG2000 image compression on solar EUV images", Solar Physics 292, 16 (2017)
10. *Johnston, C.D.*, Hood, A.W., Cargill, P.J., **De Moortel, I.**, "A New Approach for Modelling Chromospheric Evaporation in Response to Enhanced Coronal Heating: 1 The Method", Astron. & Astrophys. 597,81 (2017)
11. Antolin, P., **De Moortel, I.**, Van Doorsselaere, T.,Yokoyama,T., "Modelling Observed Decay-less Oscillations as Resonantly Enhanced Kelvin-Helmoltz Vortices from Transverse MHD Waves and their Seismological Application"', Astrophys. J. Letters 380, L22 (2016)
12. Bryans, P., McIntosh, S.W., **De Moortel, I.**, De Pontieu, B., "On the connection between propagating coronal disturbances and chromospheric footpoints", Astrophys. J. Letters 829, L18 (2016)
13. *O'Hara, J.P.*, **De Moortel, I.**, "Impact of flux distribution on elementary heating events", Astron. & Astrophys., 594, A67 (2016)
14. Cargill, P.J., **De Moortel, I.**, *Kiddie, G.*, "Coronal density structure and its role in wave damping in loops", Astrophys. J. 823, 31 (2016)

15. +**De Moortel, I.**, Pascoe, D.J., Wright, A.N., Hood, A.W., Transverse, Propagating Velocity Perturbations in Solar Coronal Loops", Plasma Physics and Controlled Fusion 58, article id. 014001 (2016)
16. Pascoe, D.J., Wright, A.N., **De Moortel, I.**, Hood, A.W., "Excitation & damping of broadband kink waves in the solar corona", Astron. & Astrophys. 78, A99 (2015)
17. *Liu, J.*, McIntosh, S.W., **De Moortel, I.**, Wang, Y., "On the Parallel and Perpendicular Propagating Motions Visible in Polar Plumes: An Incubator For (Fast) Solar Wind Acceleration?", Astrophys. J. 806, 273 (2015)
18. +**De Moortel, I.**, Browning, P., "Recent advances in coronal heating", Phil Trans A 373, 20140269 (2015)
19. **De Moortel, I.**, Antolin, P., Van Doorsselaere, T., "Observational Signatures of Waves and Flows in the Solar Corona", Solar Phys. 290, 399 (2015)
20. +Komm, R., **De Moortel, I.**, Fan, Y., Ilonidis, S., Steiner, O., "Sub-photosphere to solar atmosphere connection", Space Science Reviews 196, 167 (2015)
21. *Liu, J.*, McIntosh, S.W., **De Moortel, I.**, Threlfall, J., Bethge, C., "Statistical Evidence for the Existence of Alfvenic Turbulence in Solar Coronal Loops", Astrophys. J. 797, 7 (2014)
22. Pascoe, D.J., **De Moortel, I.**, "Standing Kink Modes in 3D Coronal Loops", Astrophys. J. 784, 101 (2014)
23. **De Moortel, I.**, McIntosh, S.W., Threlfall, J., Bethge, C., Liu, J., "Potential Evidence for the Onset of Alfvenic Turbulence in Trans-Equatorial Coronal Loops", Astrophys. J. Lett. 782, L34 (2014)
24. Hood, A.W., Ruderman, M., Pascoe, D.J., **De Moortel, I.**, Terradas, J., Wright, A.N.,"The damping of kink waves by mode coupling: I Analytical treatment", Astron. & Astrophys. 551, A39 (2013)
25. Pascoe, D.J., Hood, A.W., **De Moortel, I.**, Wright, A.N.,"The damping of kink waves by mode coupling: II A parametric study", Astron. & Astrophys. 551, A40 (2013)
26. Threlfall, J.W., **De Moortel, I.**, Bethge, C., McIntosh, S.W., "First comparison of wave observations from CoMP and AIA/SDO", Astron. & Astrophys. 556, A40 (2013)
27. Martens, P.C.H., Attrill, G.D.R., Davey, A.R., Engell, A., Farid, S., Grigis, P.C., Kasper, J., Korreck, K., Saar, S.H., Savcheva, A., Su, Y., Testa, P., Wills-Davey, M., Bernasconi, P.N., Raouafi, N.-E., Delouille, V.,A., Hochedez, J.,F., Cirtain, J.W., Deforest, C.E., Angryk, R.A.,**De Moortel, I.**, Wiegelmann, T., Georgoulis, M.K., McAteer, R.T.J., Timmons, R.P.,"Computer Vision for the Solar Dynamics Observatory (SDO)", Sol. Phys. 275, 79-113 (2012)
28. Pascoe, D.J., Hood, A.W., **De Moortel, I.**, Wright, A.N., "Spatial Damping of Propagating Kink Waves due to Mode Coupling", Astron. & Astrophys. 539, A37 (2012)
29. **De Moortel, I.**, Pascoe, D.J., "The Effects of Line-of-Sight integration on Multistrand Coronal Loop Oscillations", Astrophys. J. 746, 31 (2012)
30. *Kiddie, G.*, **De Moortel, I.**, Del Zanna, G., McIntosh, S.W., Whittaker, I. "Propagating Disturbances in Coronal Loops: A Detailed Analysis of Propagation Speeds", Sol. Phys. 279, 427-452 (2012)
31. *Threlfall, J.W.*, Parnell, C.E., **De Moortel, I.,** McClements, K.G., Arber, T.D. "Nonlinear wave propagation and reconnection at magnetic X-points in the Hall MHD regime", Astron. & Astrophys. 544, A24 (2012)
32. +‡**De Moortel, I.**, Nakariakov, V.M, "Magnetohydrodynamic waves and coronal seismology: an overview of recent results", Roy. Soc. Phil. Trans. A 370, 3193-3216 (2012)
33. +†Parnell, C.E., **De Moortel, I.**, "A contemporary view of coronal heating", Roy. Soc. Phil. Trans. A 370, 3217-3240 (2012)
34. Jess, D.B., **De Moortel, I.**, Mathioudakis, M.,Christian, D.J., Reardon, K.P., Keys, P.H., Keenan, F.P. "The Source of Three-minute Magneto-acoustic Oscillations in Coronal Fans", Astrophys. J. 757, 160 (2012)
35. +McLaughlin, J.A., Hood, A. W., **De Moortel, I.**, "MHD Wave Propagation Near Coronal Null Points of Magnetic Fields", Space Science Reviews 158, 205-236 (2011)

36. *Threlfall, J.W.*, McClements, K. G., **De Moortel, I.**, "Alfvén wave phase-mixing and damping in the ion cyclotron range of frequencies", Astron. & Astrophys. 525, A155 (2011)
37. McLaughlin, J.A., **De Moortel, I.**, Hood, A.W., "Phase Mixing of Nonlinear visco-resistive Alfvén Waves", Astron. & Astrophys. 527, A149 (2011)
38. Pascoe, D.J., Wright, A.N.,**De Moortel, I.**,"Coupled Alfvén and kink mode oscillations in an inhomogeneous corona", Astrophys. J. 731, 73 (2011)
39. Marsh, M.S., **De Moortel, I.**, Walsh, R.W., "Observed damping of the slow magnetoacoustic mode", Astrophys. J. 734, 81 (2011)
40. † Pascoe, D.J., Wright, A.N., **De Moortel, I.**, "Coupled Alfvén and kink mode oscillations in coronal loops", Astrophys. J. 711, 990-996 (2010)
41. Verwichte, E., Marsh, M., Foullon, C., Van Doorsselaere, T., **De Moortel, I.**, Hood, A.W., Nakariakov, V.M., "Periodic Spectral Line Asymmetries in Solar Coronal Structures from Slow Magnetoacoustic Waves", Astrophys. J. 724, L194-L198 (2010)
42. McLaughlin, J.A., **De Moortel, I.**, Hood, A.W., Brady, C.S., "Nonlinear Fast Magnetoacoustic Wave Propagation in the Neighbourhood of a 2D magnetic X-point: Oscillatory Reconnection", Astron. & Astroph. 493, 227-240 (2009)
43. *Owen, N.*, **De Moortel, I.**, "Forward Modelling of Propagating Slow MHD Waves", Astron. & Astroph. 494, 339-353 (2009)
44. $^{+}$†**De Moortel, I.**, " Longitudinal Waves in Coronal Loops", Space Science Reviews 149, 65-81 (2009)
45. Pascoe, D.J, **De Moortel, I.**, McLaughlin, J.A., "Impulsively generated oscillations in a 3D coronal loop", Astron. & Astrophys. 505, 319 - 327 (2009)
46. **De Moortel, I.**, Pascoe, D.J., "Putting coronal seismology estimates of the magnetic field to the test", Astrophys. J. Lett. 699, L72-L75 (2009)
47. **De Moortel, I.**, Bradshaw, S., "Forward Modelling of Coronal Intensity Perturbations", Sol. Phys. 252, 101-119 (2008)
48. † **De Moortel, I.**, Brady, C.S., "Observation of higher harmonic coronal loop oscillations", Astrophys. J. 664, 1210-1213 (2007)
49. *Wilmot-Smith, A.L.*, **De Moortel, I.**, "Magnetic reconnection in flux-tubes undergoing spinning footpoint motions", Astron. & Astrophys. 473, 615-623 (2007)
50. **De Moortel, I.**, Rosner, R., "An estimate of p-mode damping by wave leakage", Sol. Phys. 246, 53-63 (2007)
51. $^{+}$**De Moortel, I.**, "Propagating MHD waves in coronal loops", Roy. Soc. Phil. Trans. A 364, 461-472 (2006)
52. † *McEwan, M.P.*, **De Moortel, I.**, "Longitudinal Intensity Oscillations Observed with TRACE: Evidence of Fine Scale Structure", Astron. & Astroph. 448, 763-770 (2006)
53. **De Moortel, I.**, Galsgaard, K., "Numerical modelling of 3D reconnection due to rotational footpoint motions", Astron. & Astroph. 451, 1101-1115 (2006)
54. **De Moortel, I.**, Galsgaard, K., "Numerical modelling of 3D reconnection: II. Comparison between rotational and spinning footpoint motions", Astron. & Astroph. 459, 627-639 (2006)
55. ‡ De Pontieu, B., Erdelyi, R., **De Moortel, I.**, "How to Channel Photospheric Oscillations into the Corona", Astrophys. J. Lett. 624, L61-L64 (2005)
56. $^{+}$**De Moortel, I.**, "An Overview of Coronal Seismology", Roy. Soc. Phil. Trans. A 363, 2743-2760 (2005)
57. † **De Moortel, I.**, Hood, A.W., "Damping of slow MHD waves in coronal loops: II. The effect of stratification and area divergence", Astron. & Astrophys. 415, 705-715 (2004)
58. † **De Moortel, I.**, Munday, S.A., Hood, A.W., "Wavelet Analysis: The effect of varying basic wavelet parameters", Sol. Phys. 222, 203-228 (2004)

59. **De Moortel, I.**, Hood, A.W.,Gerrard, C.L., Brooks, S.J., "Damping of slow MHD waves in coronal loops: III. The effect of mode coupling", Astron. & Astrophys. 425, 741-752 (2004)
60. **De Moortel, I.**, McAteer,J., "Automated detection of solar oscillations using wavelet analysis", Sol. Phys. 223, 1-11 (2004)
61. Klimchuck, J.A., Tanner, S.E., **De Moortel, I.**, "Coronal Seismology and the Propagation of Acoustic Waves Along Coronal Loops", Astrophys. J. 616, 1232-1241 (2004)
62. † Marsh, M., Walsh, R.W., **De Moortel, I.**, Ireland, J., "Joint observations of propagating oscillations with SOHO/CDS and TRACE", Astron. & Astrophys. 404, L37-L41 (2003)
63. **De Moortel, I.**, Parnell, C.E., Hood, A.W.,"Determination of coronal loop properties from TRACE observations", Sol. Phys. 215, 69-86 (2003)
64. † **De Moortel, I.**, Hood, A.W., "Damping of slow MHD waves in coronal loops", Astron. & Astrophys. 408, 755-765 (2003)
65. **De Moortel, I.**, Hood, A.W., Ireland, J., "Coronal Seismology through Wavelet Analysis", Astron. & Astroph. 381, 311-323 (2002)
66. ‡**De Moortel, I.**, Ireland, J., Hood, A.W., Walsh, R.W., "The detection of 3 & 5 minute period oscillations in coronal loops", Astron. & Astroph. 387, L13-L16 (2002)
67. Ireland, J., **De Moortel, I.**, "Application of wavelet analysis to transversal coronal loop oscillations", Astron. & Astroph. 391, 339-351 (2002)
68. ‡ **De Moortel, I.**, Ireland, J., Walsh, R.W., Hood, A.W., "Longitudinal oscillations in coronal loops observed with TRACE: I. Overview of measured parameters.", Sol. Phys. 209, 61-88 (2002)
69. † **De Moortel, I.**, Hood, A.W., Ireland, J., Walsh, R.W., "Longitudinal oscillations in coronal loops observed with TRACE: II Discusion of measured parameters.", Sol. Phys. 209, 89-108 (2002)
70. **De Moortel, I.**, Hood, A.W., Arber, T.D., "Phase mixing of Alfvén waves in a stratified and radially diverging, open atmosphere", Astron. & Astroph. 354, 334-348 (2000)
71. ‡ ‡ **De Moortel, I.**, Ireland, J., Walsh, R.W., "Observation of oscillations in coronal loops", Astron. & Astroph. 355, L23-L26 (2000)
72. **De Moortel, I.**, Hood, A.W., "Wavelet Analysis and the determination of coronal plasma properties", Astron. & Astroph. 363, 269-278 (2000)
73. **De Moortel, I.**, Hood, A.W., Ireland, J., Arber, T.D., "Phase mixing of Alfvén waves in a stratified and open atmosphere", Astron. & Astroph. 346, 641-651 (1999)

Other (non-refereed) Journal Publications

1. Cargill, P., **De Moortel, I.**, "Solar physics: Waves galore", Nature 475, 463-464 (*News & Views*) (2011)
2. Cargill, P., Parnell, C., Browning, P., **De Moortel, I.**, Hood, A., "Magnetic reconnection in the solar atmosphere: from proposal to paradigm", Astron. & Geophys. 51, Issue 3, 3.31-3.35. (2010)
3. **De Moortel, I.**, Browning, P.K., Bradshaw, S.J., Pinter, B., Kontar, E.P., "The Way Forward for Coronal Heating", Astron. & Geophys. 49, Issue 3, 3.21-3.26 (2008)

Dissertations

Ph.D. Thesis "Theoretical and Observational Aspects of Wave Propagation", Univ. of St Andrews (2000)
Master Thesis "Phase mixing of Alfvén Waves", KU Leuven (Belgium) (1997)

Publications in refereed conference proceedings

1. **De Moortel, I.**, "Coronal Loop Seismology: Selective Examples", ASP Conf. Series 383, 266 (2008)
2. **De Moortel, I.**, Hood, A.W., "Damping of observed longitudinal oscillations in coronal loops due to thermal conduction", Proceedings of NATO Advanced Research Workshop on Turbulence, Waves and Instabilities in Solar Plasma, published by Eötvös University, Vol. 13, 127-132 (2003)

Publications in non-refereed conference proceedings

1. **De Moortel, I.**, "Coronal Loop Seismology: Selective Examples", ASP Conf. Series 383, 266 (2008)
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