Dominic M. Bowman

PhD., MSci. (Hons), FRAS, MInstP

Date of birth: 15 October 1990 **Nationalities:** British & Irish
Place of birth: Nuneaton, United Kingdom
Work address: Institute of Astronomy, KU Leuven, Celestijnenlaan 200D, 3001 Leuven, Belgium
Web of Science: X-6688-2019 **ORCID:** 0000-0001-7402-3852
Personal website: https://dbowman234.github.io/ **E-mail:** dominic.bowman@kuleuven.be

I. Personal Statement

Currently I am an FWO senior postdoctoral research fellow in the Institute of Astronomy at KU Leuven. My primary research focus is asteroseismology of high- and intermediate-mass stars. The analysis of stellar pulsations reveals tight constraints on interior physics such as rotation, mixing and angular momentum transport. My expertise includes the extraction and analysis of photometric and spectroscopic data from space- and ground-based telescopes, and forward seismic modelling of pulsating stars. I am passionate and actively develop teaching at the BSc, MSc and PhD level, and outreach for all ages and backgrounds.

My undergraduate studies at the University of Birmingham inspired me to pursue a research career in asteroseismology. I completed my PhD at UCLan in the UK under the supervision of Prof. Donald Kurtz, and my thesis was published as a Springer monograph. I published a first-author paper in Nature Astronomy on my postdoctoral research at KU Leuven, which was selected as the cover image for the August 2019 issue. In May 2020, I was awarded the prestigious KU Leuven Research Council Award in Science, Engineering and Technology (2020) for my breakthrough research in asteroseismology of massive stars. In November 2020, I began a prestigious and competitive 3-yr FWO research fellowship based at KU Leuven in Belgium.

II. Education

Postgraduate degree Oct 2013 – Nov 2016
PhD in astronomy with thesis title: *Amplitude modulation and energy conservation of pulsation modes in delta Scuti stars*, awarded on 21 November 2016 by the University of Central Lancashire, Preston, UK. My supervisor was Prof. Donald Kurtz and I was funded by the UK Science and Technology Facilities Council (STFC). I passed my PhD defence outright with no corrections about 6 months ahead of schedule.

Undergraduate degree Sept 2009 – June 2013
First class integrated Master (BSc + MSc) in Science (M.Sci.) degree with honours in physics and astrophysics from the University of Birmingham in the UK, with an award date of 8 July 2013.

III. Employment

FWO Senior Postdoctoral Fellowship 1 Nov 2020 to present date
Institute of Astronomy, KU Leuven, Celestijnenlaan 200D, 3001 Leuven, Belgium. Personal mandate funded by Fonds Wetenschappelijk Onderzoek (FWO) Vlaanderen (grant agreement N^{o} 1286521N).

Postdoctoral Research Associate 1 Feb 2017 to 31 Oct 2020
Institute of Astronomy, KU Leuven, 3001 Leuven, Belgium. Funded by the European Union's Horizon 2020 research and innovation programme (grant agreement N^{o} 670519: MAMSIE, PI Aerts).

Lecturer in Astronomy 19 Sept 2016 – 13 Jan 2017
Jeremiah Horrocks Institute, University of Central Lancashire, Preston, PR1 2HE, United Kingdom.

IV. Scientific Prizes and Awards

FWO Long Stay Abroad Oct - Dec 2021
I was awarded a competitive FWO grant for a long research stay abroad to cover all costs for my visit to KITP, California, USA for 3 months in 2021, for a total of approximately €5000.

KU Leuven Research Council Award (POR) May 2020
This prestigious and highly-competitive prize for postdoctoral researchers within KU Leuven was awarded for my research in massive star asteroseismology, and included € 20 000 of research funding.

Springer Thesis Award Oct 2017
My PhD thesis was published as part of the Springer thesis series in 2017 for Outstanding PhD Research. This prestigious scientific prize required recommendations from my PhD supervisor and one of my thesis examiners, and a selection process overseen by the executive editor of astronomy at Springer. Furthermore, this opportunity allowed me to expand my thesis into a detailed monograph and included a cash prize.

Small Travel Grants
I have been successful in numerous travel bursary applications to external funding bodies for attending international conferences, which include STFC and RAS in the UK, CNRS in France and FWO in Belgium. The combined total of these travel grants is approximately € 5000.

V. Conference Organisation

TASC6/KASC13, *Leuven, Belgium* 11–15 July 2022
Chair of the LOC for the TASC6/KASC13 conference of the asteroseismic community, which will be held in Leuven and attract ∼200 participants. Postponed from 2020 because of the COVID-19 pandemic.

EAS 2021, *Virtual (hosted by Leiden University, the Netherlands)* 28 June – 2 July 2021
Co-Chair of the SOC of the symposium titled "Massive stars: birth, rotation, and chemical evolution" at the EAS 2021 meeting, which had more than 100 participants.

MOBSTER1, *Virtual (hosted by University of Delaware, USA)* 13–17 July 2020
Co-Chair of the SOC for the virtual MOBSTER-1 conference, which had more than 170 participants. Format was changed to a virtual conference because of the COVID-19 pandemic.

EAS 2020, *Virtual (hosted by Leiden University, the Netherlands)* 29 June – 3 July 2020
Chair of the SOC of the special session titled "New insights of angular momentum transport in stellar interiors" held on 1 June during the EAS 2020 meeting, which had more than 100 participants. Format was changed to a virtual conference because of the COVID-19 pandemic.

STARS2016, *Windermere, UK* 11–15 Sept 2016
Principal organiser (Chair of the LOC) for the STARS2016 conference which celebrated the scientific career of Prof. Donald Kurtz and had more than 75 participants. The budget was approximately £40 000, and successful grant applications included £3000 from the RAS and £7000 from UCLan for this meeting.

VI. Personal Training

Anti-Racism in Astronomy and Geophysics, *Virtual, (hosted by RAS)* 12 August 2021
Seminars and training session on anti-racism initiatives in academia.

Sex and Gender Dimensions in Frontier Research, *Virtual (hosted by ERCEA)* 16 November 2020
Seminars and training session on diversity initiatives in academia.

Voice of the future, *Westminster, London, UK* 15 March 2017
I was an ECR representative of the RAS to attend this meeting on bridging scientists and UK politicians.

STFC careers event, *Institute of Physics, London, UK* 21 Oct 2015
I was successful in my application for an STFC travel grant for the costs of attending.

Media training for outreach, *Royal Society, London, UK* 7 Oct 2015
I was successful in my application for an STFC bursary for the costs of attending.

VII. International Responsibilities and Committees

Review Editor, Frontiers Feb 2021 to present date
Editorial board member and Review Editor for the journals *'Frontiers in Astronomy and Space Sciences'* and *'Frontiers in Physics'*.

ULLYSES WG12 chair Dec 2020 to present date
Point of contact (chair) of WG12: pulsations of ULLYSES targets and XShootU collaboration.

Good Vibrations seminar series Nov 2020 to present date
Steering committee member for the Good Vibrations seminar series, which promotes and provides opportunities for PhD students to share their research internationally.

co-PI MOBSTER collaboration Nov 2020 to present date
Together with P.I. Alex David-Uraz and co-P.I. Coralie Neiner, we are in charge of organising and maximising the scientific productivity of the MOBSTER collaboration, which leverages TESS data to identify and study massive magnetic stars.

RAS ECN committee member June 2020 to present date
Secretary for the Early Careers Network (ECN) of the UK Royal Astronomical Society (RAS).

BEST member Sept 2019 to present date
Non-voting member of the BRITE Executive Science Team (BEST).

SHOC@SAAO pipeline developer July 2020 to present date
I am the principal author of the TEA-PHOT pipeline to reduce and extract light curves from the SHOC imager at SAAO. The TEA-PHOT pipeline is published: Bowman & Holdsworth (2019, A&A 629, A21), and is fully endorsed by the SHOC instrument team at SAAO as the go-to reduction pipeline.

CUBEspec scientific advisor Jan 2019 to present date
Advisor on the development and implementation of the asteroseismic science case for the CUBEspec cubesat mission being built by KU Leuven in collaboration with Space Inventor and ESA.

PLATO external reviewer November 2020
External reviewer for the on-ground data processing algorithms on behalf of the complementary science program (WP16) of the ESA PLATO mission.

VIII. Scientific Organisation Membership

Junior Member of International Astronomical Union (IAU) since January 2020.

Member of the European Astronomical Society (EAS) since April 2019.

Fellow of the Royal Astronomical Society (FRAS) since October 2013.

Member of the Institute of Physics (MInstP) since October 2013.

IX. Observing Projects and Experience

European Southern Observatory (ESO), *Chile*

- 14 nights of observing experience as visiting astronomer in December 2019 using the FEROS spectrograph mounted on the 2.2-m MPG/ESO telescope at the La Silla observatory, ESO.
- Co-I of ESO programme obtaining multi-epoch high-resolution spectroscopy of gamma Doradus stars with UVES *(106.21S8.001; 106.21S8.003; 106.21S8.003; 21 hr; PI Christophe)*.
- Co-I of MPG/ESO programme obtaining multi-epoch high-resolution spectroscopy of massive binary stars with FEROS *(0106.A-9106; 90 hr; PI Aerts)*.
- Co-I of ESO large programme obtaining multi-epoch high-resolution spectroscopy of massive stars with UVES *(1104.D-0230; 120 hr; PI Tkachenko)*.
- Co-I of MPG/ESO programme obtaining multi-epoch high-resolution spectroscopy of massive stars with FEROS *(0104.A-9001; 120 hr; PI Aerts)*.
- Co-I of ESO DDT obtaining phase-resolved high-resolution spectroscopy of the pulsating eclipsing binary system U Gru with UVES *(103.200F; 4 hr; PI Johnston)*.

Transiting Exoplanet Survey Satellite (TESS), *NASA*

- PI of two TESS Guest Investigator proposals obtaining high-precision and short-cadence time series photometry of massive stars in cycle 3 *(GO3059; 1058 stars; PI Bowman)* and cycle 4 *(GO4074; 1618 stars; PI Bowman)*.
- Co-I of multiple TESS Guest Investigator proposals obtaining high-precision and short-cadence time series photometry of intermediate- and high-mass stars in cycles 1–4.

South African Astronomical Observatory (SAAO), *Sutherland, South Africa*

- 21 nights of observing experience as visiting astronomer in May and June 2017 using the SHOC imager mounted on the 1-m telescope at SAAO to obtain high-cadence photometry of roAp stars.
- PI of service time proposal to gain high-cadence photometry of candidate roAp stars in May 2018.

Mercator Observatory, *La Palma, Spain*

- Approximately 55 nights of observing experience using the HERMES and MAIA instruments on the 1.2-m Mercator telescope between 2017 and 2021.
- PI of HERMES proposal awarded 80 hr in semester 2021a to gain time-series spectroscopy of high-mass pulsating eclipsing binaries discovered by TESS.
- PI of MAIA proposal awarded 120 hr in semester 2020b to gain short-cadence multi-colour time-series photometry of roAp stars observed by K2 and TESS.
- PI of HERMES proposal awarded 70 hr in semester 2018b, 35 hr in semester 2019a and 90 hr in semester 2019b to gain spectroscopy of Ap stars being observed by TESS.
- PI of a HERMES proposal awarded 60 hr in semester 2018a to gain accurate stellar parameters for pulsating B, A and F stars in the *Kepler* field for forward seismic modelling.
- PI of a HERMES proposal awarded 40 hr in semester 2017a and 20 hr in semester 2018a to study high-mass companions to δ Sct stars in binary systems discovered using pulsation timing.

Moses Holden Telescope (MHT), *UCLan, Preston, UK*

- Approximately 20 nights of observing experience with the 0.75-m MHT in 2016 and 2017.

William Herschel Telescope (WHT), *La Palma, Spain*

- PI of service time proposal in 2016 to gain accurate $T_{\rm eff}$ values for 23 δ Sct stars observed by *Kepler*.

X. Teaching and Supervision Experience

PhD theses, *KU Leuven, Belgium*

- Examination committee (jury) member of Camilla Scolini — May 2020
  Magnetised Coronal Mass Ejections: evolution from the Sun to 1 AU and geo-effectiveness
- Co-supervisor of Jordan Van Beeck — Sept 2019 to date
  Application of non-linear asteroseismology to Kepler and TESS photometry
- Progress committee member of Joris Hermans — Sept 2019 to date
  Solar flux ropes and tornadoes
- Co-supervisor of Siemen Burssens — Sept 2018 to date
  Variability of blue supergiants with the K2 and TESS space missions
- Progress committee member of Joey S. G. Mombarg — Feb 2018 to date
  Forward seismic modelling of intermediate mass stars
- Long-stay research supervisor of Mariel Lares-Martiz — Sept 2019 to Dec 2019
  Non-linear terms in Delta Scuti stars power spectra

Master theses, *KU Leuven, Belgium*

- Supervisor of Nagaraj Vernekar — Sept 2020 to date
  On the photometric and spectroscopic variability of Be stars: the case of HD 93683
- Examination committee member (reader) of Anne Daniels — June 2021
  Permutation entropy and statistical complexity to characterise space plasmas
- Examination committee member (reader) of Mariya Nizovkina — June 2021
  Investigating the effect of microturbulent velocity on mass discrepancy in the binary system V380 Cyg
- Examination committee member (reader) of Tinatin Baratashvili — June 2020
  On the effect of grid stretching and AMR on inner heliospheric solar wind and CME evolution simulations
- Supervisor of Joris Hermans — Sept 2018 to June 2019
  Testing stellar evolution with selected high-amplitude delta Scuti stars
- Supervisor of Sven Nys — Sept 2018 to June 2019
  Asteroseismic modelling of gravity modes in selected intermediate-mass stars
- Co-supervisor of Jordan Van Beeck — Sept 2018 to June 2019
  The influence of an interior magnetic field on gravity-mode oscillations of intermediate-mass stars
- Examination committee member (reader) of Mathias Michielsen — June 2018
  Comparing oscillation frequencies of stars with a convective core: Impact of varying input physics

Undergraduate Courses and Modules

Guest Lecturer, *University of Innsbruck, Austria* — May 2021
Lecture on massive star asteroseismology for course of Prof. Konstanze Zwintz.

Module Tutor, *KU Leuven, Belgium* — Sept 2019 to date
Responsible for delivering the MSc thesis defence preparation course.

Module Examiner, *KU Leuven, Belgium* — Sept 2017 to July 2019
Examiner for the Bachelor science communication and MSc Asteroseismology courses.

Bachelor and master student projects, *KU Leuven, Belgium* Sept 2017 to date
Supervision of multiple bachelor and master student projects in asteroseismology.

Module tutor, *UCLan, UK* Sept 2016 – Jan 2017
Responsible for lecturing first- and second-year Bachelor courses in statistics, astronomy, mathematics, and supervision of astronomy laboratories at Alston observatory.

XI. Scientific Conferences and Workshops

KITP program, *Santa Barbara, California, USA* 11 Oct – 17 Dec 2021
I was successful in my application for an FWO long stay abroad grant to cover the costs. This program also included a conference between 11-18 November at which I am an invited speaker.

TESS SciCon II, *Virtual (hosted by MIT, USA)* 2–6 Aug 2021

BRITE-related Science Meeting, *Virtual (hosted by Innsbruck, Austria)* 12 July 2021

EAS 2021, *Virtual (hosted by Leiden University, the Netherlands)* 28 June – 2 July 2021
Co-Chair of the SOC of symposium 16 (S16) titled "Massive stars: birth, rotation, and chemical evolution".

IAU361 mini-symposium on massive stars, *Virtual (hosted by DIAS, Ireland)* 3–7 May 2021

OBA stars: variability and magnetic fields, *Virtual (hosted by St. Petersburg)* 26–30 April 2021
Invited speaker on the topic of asteroseismology of O and B stars.

Pulsations in Multiple Systems, *Virtual (hosted by University of Surrey, UK)* 18–22 Jan 2021
Invited speaker on the topic of asteroseismology of OBAF stars.

MOBSTER-1, *Virtual (hosted by University of Delaware, USA)* 13–17 July 2020
Co-Chair of the SOC for the first conference of the MOBSTER collaboration.

EAS 2020, *Virtual (hosted by Leiden University, the Netherlands)* 29 June – 3 July 2020
Chair of the SOC for the special session 5 (SS5) titled: "New insights of angular momentum transport in stellar interiors" at the EAS2020 conference.

Stars and their Variability, *Vienna, Austria* 19–23 Aug 2019
Invited speaker on the topic of asteroseismology of O and B stars.

TESS Sci Con I, *MIT, Cambridge, USA* 29 July – 2 Aug 2019

TASC5/KASC12, *MIT, Cambridge, USA* 22–26 July 2019

Stellar Hydro Days V, *Exeter, UK* 24–28 June 2019

STFC/MAMSIE mini-workshop, *Leuven, Belgium* 2–4 April 2019

Kepler/K2 Sci Con V, *Glendale, California, USA* 4–8 March 2019

TESS data workshop, *KU Leuven, Belgium* 5–9 Nov 2018

STFC/MAMSIE mini-workshop, *Leuven, Belgium* 29–31 Oct 2018

MASSIVE star meeting, *Leuven, Belgium* 4–6 Oct 2018

PHOST, *Banyuls-sur-mer, France* 3–7 Sept 2018

TASC4/KASC11, *Aarhus University, Denmark* 8–13 July 2018
Invited speaker on the topic of asteroseismology of A and F stars. I was successful in my application for an

FWO conference participation grant to cover the travel costs.

Statistics workshop, *KU Leuven, Belgium* 11 June 2018

STFC/MAMSIE mini-workshop, *Newcastle University, UK* 5–8 June 2018

Belgian contact group meeting, *Brussels, Belgium* 4 June 2018

MAMSIE/STFC workshop, *KU Leuven, Belgium* 14–16 March 2018

TESS data workshop, *KU Leuven, Belgium* 6–8 Dec 2017

MAMSIE/STFC workshop, *KU Leuven, Belgium* 12–15 Sept 2017

MESA Summer school, *UCSB, California, USA* 14–18 Aug 2017

TASC3/KASC10, *University of Birmingham, UK* 17–21 July 2017

STARS2016, *Windermere, UK* 11–15 Sept 2016
Chair of the LOC celebrating the scientific contributions of Prof. Donald Kurtz.

TASC2/KASC9 workshop, *Terceira-Açores, Portugal* 27 June – 1 July 2016
My application for the defrayment of my registration fee was successful.

National Astronomy Meeting (NAM), *Nottingham University, UK* 11–15 July 2016

STFC spectroscopy school, *Queen's University Belfast, UK* 31 Aug – 4 Sept 2015
My accommodation and subsistence costs were funded by STFC.

KASC8/TASC1 workshop, *Aarhus University, Denmark* 15–19 June 2015
I was successful in my application for an RAS travel grant for half the total costs.

RAS specialist discussion meeting, *RAS, London, UK* 8 May 2015
Invited speaker on the topic of pulsations in delta Scuti stars observed by Kepler.

K2 data workshop, *(Virtual) Aarhus University, Denmark* 10–11 Nov 2014

Ecole Evry Schatzman 2014, *Roscoff, France* 28 Sept – 3 Oct 2014
My accommodation and subsistence costs were funded by CNRS.

CoRoT3/KASC7 meeting, *Toulouse, France* 6–11 July 2014
My application for the defrayment of my registration fee was successful.

Spectroscopy workshop, *Aarhus University, Denmark* 19–23 May 2014
My application for an RAS travel grant for half the total costs was successful.

XII. Conference Talks, Seminars and Colloquia

Conferences Talks

- Transport in Stellar Interiors (**Invited**), *KITP, UCSB, USA* — 15–18 Nov 2021
- TESS SciCon II (Contributed), *Virtual (hosted by MIT, USA)* — 3 Aug 2021
- BRITE-related Science Meeting (**Invited**), *Virtual (hosted by Uni. Innsbruck, Austria)* — 12 July 2021
- IAU 361 mini-symposium (Contributed), *Virtual (hosted by DIAS, Ireland)* — 3 May 2021
- OBA stars: variability and magnetic fields (**Invited**), *Virtual (hosted by St. Petersburg)* — 30 April 2021
- PIMMS workshop (**Invited**), *Virtual (hosted by University of Surrey, UK)* — 18 Jan 2021
- Stars and their Variability (**Invited**), *Vienna, Austria* — 19 Aug 2019
- TESS Sci Con I (Contributed), *MIT, Cambridge, USA* — 30 July 2019
- TASC5/KASC12 (Contributed), *MIT, Cambridge, USA* — 23 July 2019
- Stellar Hydro Days V (Contributed), *Exeter, UK* — 26 June 2019
- Kepler/K2 Sci Con V (Contributed), *Glendale, California, USA* — 7 March 2019
- MASSIVE star meeting (Contributed), *Leuven, Belgium* — 4 Oct 2018
- PHOST conference (Contributed), *Banyuls-sur-mer, France* — 6 Sept 2018
- TASC4/KASC11 workshop (**Invited**), *SAC, Aarhus University, Denmark* — 13 July 2018
- STARS2016 conference (Contributed), *Windermere, UK* — 14 Sept 2016
- KASC8/TASC1 workshop (Contributed), *SAC, Aarhus University, Denmark* — 15 June 2015
- RAS specialist discussion meeting (**Invited**), *RAS, London, UK* — 8 May 2015

Seminars and Colloquia

- (Virtual) Sheffield University, UK — 6 Oct 2021
- (Virtual) Keele University, UK — 19 May 2021
- (Virtual) Nicolaus Copernicus Astronomical Center, Poland — 21 April 2021
- (Virtual) KITP, California, USA — 16 Dec 2020
- KU Leuven, Belgium — 22 March 2019
- Newcastle University, UK — 6 June 2018
- Université Libre de Bruxelles, Belgium — 19 April 2018
- KU Leuven, Belgium — 2 March 2018
- Royal Observatory of Belgium, Belgium — 16 Nov 2017
- University of Central Lancashire (UCLan), UK — 15 June 2016
- SAC, Aarhus University, Denmark — 2 May 2016
- University of Central Lancashire (UCLan), UK — 15 July 2015
- Keele University, UK — 4 Sept 2014

XIII. Public Engagement and Outreach

I am passionate about public engagement and outreach in science, but particularly in astronomy. I have organised and assisted in many outreach events for school students and amateur astronomer societies in the UK and Belgium. Whilst at UCLan in the UK, this included using the modern 0.7-m telescope at Alston observatory, at which visitors were given an interactive tour of the night sky using the modern planetarium. I also visited primary and secondary schools to give talks and run astronomy-themed group activities. It is enjoyable and rewarding to engage with young students and members of the public and discuss astronomy at various levels. I am dedicated to my outreach activities throughout my career.

Notable outreach activities I have performed whilst at KU Leuven include:

- Ongoing participant of the Scientist@School program, for which I provide astronomy-themed talks and activities for local Belgian schools.
- Ongoing participant of the Skype a Scientist program, for which I regularly discuss astronomy online with international participants, including school classrooms and families.
- A series of short popular-science videos in collaboration with Huawei and Pint of Science Belgium for the "5-minute science you never knew" playlist of the 'What Makes it Tick?' YouTube channel.
- Guest lecturer in stellar physics for the Vereniging Voor Sterrenkunde Zomerschool for 30–40 students aged 16–18 in August 2017, 2018 and 2020.
- Co-author of (Dutch) article for the September 2019 issue of the popular astronomy magazine Heelal.
- Invited speaker at two Pint of Science events in Brussels on 7 and 21 May 2019, each with more than 100 attendees.
- A 90-min workshop on space exploration and the solar system at the KU Leuven Kids University 2018, for 30 students aged 8–12 on 5 May 2018.
- Workshops on Exoplanets, Habitability and Host Star Variability for the Ladies@Science 2017 event, hosted at KU Leuven for 40 students aged 14–16 on 19 April 2017.

XIV. Peer-Reviewed Scientific Publications

As of 1 Sept 2021, my citation metrics are:

Google scholar: 1533 citations and h-index of 25 **NASA ADS:** 1268 citations and h-index of 23

Submitted papers currently under review:

- A. Elliott, N. D. Richardson, H. Pablo, A. F. J. Moffat, **D. M. Bowman**, N. Ibrahim, G. Handler, C. Lovekin, A. Popowicz, N. St-Louis, G. A. Wade, K. Zwintz, *(submitted to MNRAS)*, *'Five years of BRITE-Constellation photometry of the prototypical luminous blue variable P Cygni: constraining the stochastic low-frequency variability'*
- **D. M. Bowman** and M. Michielsen, *(submitted to A&A)*, *'Towards a systematic treatment of observational uncertainties in forward asteroseismic modelling of gravity-mode pulsators'*

Accepted papers currently in press:

- J. Van Beeck, **D. M. Bowman**, M. G. Pedersen, T. Van Reeth, T. Van Hoolst, C. Aerts, *(in press, A&A)*, *'Detection of nonlinear resonances among gravity modes of slowly pulsating B stars: results from five iterative prewhitening strategies'*
- J. Audenaert, J. S. Kuszlewicz, R. Handberg, A. Tkachenko, D. Armstrong, M. Hon, R. Kgoadi, M. N. Lund, K. J. Bell, L. Bugnet, **D. M. Bowman**, C. Johnston, R. A. García, D. Stello, L. Molnár, E. Plachy, D. Buzasi, C. Aerts, and the T'DA collaboration, *(in press, AJ)*, *'TESS Data for Asteroseismology (T'DA) Stellar Variability Classification Pipeline: Set-Up and Application to the Kepler Q9 Data'*

Published articles:

- D. L. Holdsworth, M. S. Cunha, D. W. Kurtz, V. Antoci, D. R. Hey, **D. M. Bowman**, O. Kobzar, D. L. Buzasi, O. Kochukhov, E. Niemczura, D. Ozuyar, F. Shi, R. Szabó, A. Samadi-Ghadim, Zs. Bognár, L. Fox-Machado, V. Khalack, M. Lares-Martiz, C. C. Lovekin, P. Mikołajczyk, D. Mkrtichian, J. Pascual-Granado, E. Paunzen, T. Richey-Yowell, Á. Sódor, J. Sikora, T. Z. Yang, E. Brunsden, A. David-Uraz, A. Derekas, A. García Hernández, J. A. Guzik, N. Hatamkhani, R. Handberg, T. S. Lambert, P. Lampens, S. J. Murphy, R. Monier, K. R. Pollard, P. Quitral-Manosalva, A. Ramón-Ballesta, B. Smalley, I. Stateva, R. Vanderspek, (2021), MNRAS, Volume 506, Issue 1, 1073–1110, *'TESS Cycle 1 observations of roAp stars with 2-min cadence data'*
- A. David-Uraz, M. E. Shultz, V. Petit, **D. M. Bowman**, C. Erba, R. A. Fine, C. Neiner, H. Pablo, J. Sikora, A. ud-Doula, G. A. Wade, (2021), MNRAS 504, Issue 4, 4841–4849, *'MOBSTER – IV. Detection of a new magnetic B-type star from follow-up spectropolarimetric observations of photometrically selected candidates'*
- **D. M. Bowman**, J. Hermans, J. Daszyńska-Daszkiewicz, D. L. Holdsworth, A. Tkachenko, S. J. Murphy, B. Smalley, D. W. Kurtz, (2021), MNRAS 504, Issue 3, 4039–4053 *'KIC 5950759: a high-amplitude δ Sct star with amplitude and frequency modulation near the terminal age main sequence'*
- W. W. Weiss, K. Zwintz, R. Kuschnig, G. Handler, A. F. W. Moffat, D. Baade, **D, M. Bowman**, T. Granzer, T. Kallinger, O. F. Koudelka, C. Lovekin, C. Neiner, H. Pablo, A. Pigulski, A. Popowicz, T. Ramiaramanantsoa, S. Rucinski, K. Strassmeier, G. Wade, (2021), Universe 7, 199, *'Space Photometry with BRITE-Constellation'*
- M. Michielsen, C. Aerts, **D. M. Bowman**, (2021), A&A 650, A175, *'Probing the temperature gradient in the core boundary layer of stars with gravito-inertial modes: the case of KIC 7760680'*

- S. Gebruers, I. Straumit, A. Tkachenko, J. S. G. Mombarg, M. G. Pedersen, T. Van Reeth, G. Li, P. Lampens, A. Escorza, **D. M. Bowman**, P. De Cat, L. Vermeylen, Y. Frémat, J. Bodensteiner, H.-W. Rix, C. Aerts, (2021), A&A 650, A151, *'A homogeneous spectroscopic analysis of a Kepler legacy sample of dwarfs for gravity-mode asteroseismology'*
- T. Shenar, H. Sana, P. Marchant, B. Pablo, N. Richardson, A. F. J. Moffat, T. Van Reeth, R. H. Barbá, **D. M. Bowman**, P. Broos, P. A. Crowther, S. Clark, A. de Koter, S. E. de Mink, K. Dsilva, G. Gräfener, I. D. Howarth, N. Langer, L. Mahy, J. Máíz Apellániz, A. M. Pollock, F. R. N. Schneider, L. Townsley, J. S. Vink, (2021), A&A 650, A147, *'The Tarantula Massive Binary Monitoring V. R 144 – a wind-eclipsing binary with a total mass $\geq$ 140 $M_{\odot}$'*
- C. Johnston, N. Aimar, M. Abdul-Masih, **D. M. Bowman**, T. White, C. Hawcroft, H. Sana, S. Sekeran, K. Dsilva, A. Tkachenko, C. Aerts, (2021), MNRAS 503, Issue 1, 124–1137, *'Characterization of the variability in the O+B eclipsing binary HD 165246'*
- J. Southworth, **D. M. Bowman**, K. Pavlovski, (2021), MNRAS Letters 501, Issue 1, L65-L70, *'A beta Cephei pulsator and a changing orbital inclination in the high-mass eclipsing binary system VV Orionis'*
- M. G. Pedersen, C. Aerts, P. I. Pápics, M. Michielsen, S. Gebruers, T. M. Rogers, G. Molenberghs, S. Burssens, S. Garcia, **D. M. Bowman**, (2021), Nature Astronomy, Volume 5, 715–722, *'Internal mixing of rotating stars inferred from dipole gravity modes'*
- T. Steindl, K. Zwintz, **D. M. Bowman**, (2021), A&A 645, A119, *'Tidally perturbed pulsations in the pre-main sequence δ Scuti binary RS Cha'*

2020: 2 first author and 10 co-author publications

- S. Sekaran, A. Tkachenko, M. Abdul-Masih, A. Prša, C. Johnston, D. Huber, S. J. Murphy, G. Banyard, A. W. Howard, H. Isaacson, **D. M. Bowman**, C. Aerts, (2020), A&A 643, A162, *'Tango of celestial dancers: A sample of detached eclipsing binary systems containing g-mode pulsating components. A case study of KIC9850387'*
- **D. M. Bowman**, (2020), Frontiers in Astronomy and Space Sciences 7, 70, *'Asteroseismology of high-mass stars: new insights of stellar interiors with space telescopes'*
- J. Southworth, **D. M. Bowman**, A. Tkachenko, K. Pavlovski, (2020), MNRAS Letters 497, Issue 1, L19–L23, *'Discovery of β Cep pulsations in the eclipsing binary V453 Cygni'*
- J. Bodensteiner, T. Shenar, L. Mahy, M. Fabry, P. Marchant, M. Abdul-Masih, G. Banyard, **D. M. Bowman**, K. Dsilva, A. J. Frost, C. Hawcroft, M. Reggiani, H. Sana, (2020), A&A 641, A43, *'Is HR 6819 a triple system containing a black hole? An alternative explanation'*
- L. Horst, P. V. F. Edelmann, R. Andrássy, F. K. Röpke, **D. M. Bowman**, C. Aerts, R. P. Ratnasingam, (2020), A&A 641, A18, *'Fully compressible simulations of waves and core convection in main-sequence stars'*
- **D. M. Bowman**, S. Burssens, S. Simón-Díaz, P. V. F. Edelmann, T. M. Rogers, L. Horst, F. K. Röpke, C. Aerts, (2020), A&A 640, A36, *'Photometric detection of internal gravity waves in upper main-sequence stars. II. Combined TESS photometry and high-resolution spectroscopy'*
- T. Shenar, J. Bodensteiner, M. Abdul-Masih, M. Fabry, L. Mahy, P. Marchant, G. Banyard, **D. M. Bowman**, K. Dsilva, C. Hawcroft, M. Reggiani, H. Sana, (2020), A&A Letters 639, L6, *'The "hidden" companion in LB-1 unveiled by spectral disentangling'*
- S. Burssens, S. Simón-Díaz, **D. M. Bowman**, G. Holgado, M. Michielsen, A. de Burgos, N. Castro, R. H. Barbá, C. Aerts, (2020), A&A 639, A81, *'Variability of OB stars from TESS southern Sectors 1-13 and high-resolution IACOB and OWN spectroscopy'*

- J. Van Beeck, V. Prat, T. Van Reeth, S. Mathis, **D. M. Bowman**, C. Aerts, (2020), A&A 638, A149, *'Detecting axisymmetric magnetic fields using gravity modes in intermediate-mass stars'*
- A. Tkachenko, K. Pavlovski, C. Johnston, C. Aerts, M. G. Pedersen, M. Michielsen, **D. M. Bowman**, J. Southworth, V. Tsymbal, (2020), A&A 637, A60, *'The mass discrepancy in intermediate- and high-mass eclipsing binaries: The need for higher convective core masses'*
- M. Abdul-Masih, G. Banyard, J. Bodensteiner, E. Bordier, **D. M. Bowman**, K. Dsilva, M. Fabry, C. Hawcroft, L. Mahy, P. Marchant, G. Raskin, M. Reggiani, T. Shenar, A. Tkachenko, H. Van Winckel, L. Vermeylen, H. Sana, (2020), Nature, Volume 580, Issue 7805, E11–E15, *'On the signature of a 70-solar-mass black hole in LB-1'*
- V. Prat, S. Mathis, C. Neiner, J. Van Beeck, **D. M. Bowman**, C. Aerts, (2020), A&A 636, A100, *'Period spacings of gravity modes in rapidly rotating magnetic stars. II. The case of an oblique dipolar fossil magnetic field'*

2019: 4 first author and 14 co-author publications

- V. Antoci, M. Cunha, **D. M. Bowman**, S. J. Murphy, D. W. Kurtz, T. R. Bedding, C. Borre, S. Christophe, J. Daszyńska-Daszkiewicz, L. Fox-Machado, A. García Hernández, H. Ghasemi, R. Handberg, H. Hansen, A. Hasanzadeh, G. Houdek, C. Johnston, A. B. Justesen, F. Kahraman Alicavus, F. Kotysz, D. Latham, J. Matthews, J. Mønster, E. Niemczura, E. Paunzen, J. P. Sanchez Arias, A. Pigulski, J. Pepper, T. Richey-Yowell, H. Safari, S. Seager, B. Smalley, T. Shutt, A. Sódor, J.-C. Suárez, A. Tkachenko, T. Wu, K. Zwintz, S. Barceló Forteza, E. Brunsden, Z. Bognár, D. Buzasi, S. Chowdhury, P. De Cat, J. Evans, Z. Guo, J. A. Guzik, N. Jevtic, P. Lampens, M. Lares Martiz, C. Lovekin, G. Li, G. M. Mirouh, D. Mkrtichian, M. J. P. F. G. Monteiro, J. Nemec, R. Ouazzani, J. Pascual-Granado, D. Reese, M. Rieutord, J. R. Rodon, M. Skarka, P. Sowicka, I. Stateva, R. Szabó, W. W. Weiss, (2019), MNRAS 490, Issue 3, 4040–4059, *'The first view of δ Sct and γ Dor stars with the TESS mission'*
- V. Khalack, C. Lovekin, **D. M. Bowman**, O. Kobzar, A. David-Uraz, E. Paunzen, J. Sikora, P. Lenz, O. Kochukhov, D. L. Holdsworth, G. A. Wade, (2019), MNRAS 490, Issue 2, 2102–2111, *'Rotational and pulsational variability in the TESS light curve of HD 27463'*
- S. Burssens, **D. M. Bowman**, C. Aerts, M. G. Pedersen, E. Moravveji, B. Buysschaert, (2019), MNRAS 489, Issue 1, 1304–1320, *'New β Cep pulsators discovered with K2 space photometry'*
- B. J. S. Pope, G. R. Davies, K. Hawkins, T. R. White, A. Stokholm, A. Bieryla, D. W. Latham, M. Lucey, C. Aerts, S. Aigrain, V. Antoci, T. R. Bedding, **D. M. Bowman**, A. Chontos, G. A. Esquerdo, D. Huber, P. Jofré, S. J. Murphy, T. Van Reeth, V. Silva Aguirre, J. Yu, (2019), ApJS 244, Issue 1, 18, *'The Kepler Smear Campaign: Light curves for 102 Very Bright Stars'*
- **D. M. Bowman**, C. Johnston, A. Tkachenko, D. Mkrtichian, K. Gunsriwiwat, C. Aerts, (2019), ApJL 883, Issue 1, L26, *'Discovery of tidally-perturbed pulsations in the eclipsing binary system U Gru: a crucial system for tidal asteroseismology'*
- **D. M. Bowman** and D. L. Holdsworth, (2019), A&A 629, A21, *'Adaptive elliptical aperture photometry: a software package for high-cadence ground-based photometry. I. Application to rapid oscillators observed from SAAO'*
- J. Sikora, A. David-Uraz, S. Chowdhury, **D. M. Bowman**, G. A. Wade, V. Khalack, O. Kobzar, O. Kochukhov, C. Neiner, E. Paunzen, (2019), MNRAS 487, Issue 4, 4695–4710, *'MOBSTER – II. Identification of rotationally variable A stars observed with TESS in sectors 1–4'*

- M. S. Cunha, V. Antoci, D. L. Holdsworth, D. W. Kurtz, L. A. Balona, Zs. Bognár, **D. M. Bowman**, Z. Guo, P. P. A. Kolaczek-Szymański, M. Lares-Martiz, E. Paunzen, M. Skarka, B. Smalley, Á. Sódor, O. Kochukhov, T. R. Bedding, D. L. Buzasi, L. Fox-Machado, A. Hasanzadeh, E. Niemczura, P. Quitral-Manosalva, I. Stateva, P. De Cat, A. García Hernández, H. Ghasemi, G. Handler, J. M. Matthews, M. J. P. F. G. Monteiro, J. M. Nemec, J. Pascual-Granado, H. Safari, J. C. Suárez, R. Szabó, A. Tkachenko, W. W. Weiss, (2019), MNRAS 487, Issue 3, 3523–3549, *'Rotation and pulsation in Ap stars: first light results from TESS sectors 1 and 2'*
- R. Manick, D. Kamath, H. Van Winkel, A. Jorissen, S. Sekaran, **D. M. Bowman**, G.-M. Oomen, J. Kluska, D. Bollen, C. Waelkens, (2019), A&A 628, A40, *'Spectroscopic binaries RV Tauri and DF Cygni'*
- A. David-Uraz, C. Neiner, J. Sikora, **D. M. Bowman**, V. Petit, S. Chowdhury, G. Handler, M. Pergeorelis, M. Cantiello, C. Erba, Z. Keszthelyi, V. Khalack, O. Kobzar, O. Kochukhov, J. Labadie-Bartz, R. MacInnis, S. P. Owocki, H. Pablo, M. E. Shultz, A. ud-Doula, G. A. Wade, and the MOBSTER Collaboration, (2019), MNRAS 487, Issue 1, 304–317, *'Magnetic OB[A] stars with TESS: probing their evolutionary and rotational properties (MOBSTER) - I. First-light observations of known magnetic B and A stars'*
- V. Prat, S. Mathis, B. Buysschaert, J. Van Beeck, **D. M. Bowman**, C. Aerts, C. Neiner, (2019), A&A 627, A64, *'Period spacings of gravity modes in rapidly rotating magnetic stars. I. Axisymmetric fossil field with poloidal and toroidal components'*
- **D. M. Bowman**, S. Burssens, M. G. Pedersen, C. Johnston, C. Aerts, B. Buysschaert, M. Michielsen, A. Tkachenko, T. M. Rogers, P. V. F. Edelmann, R. P. Ratnasingam, S. Simón-Díaz, N. Casto, E. Moravveji, B. J. S. Pope, T. R. White, P. De Cat, (2019), Nature Astronomy, Volume 3, Number 8, 760–765, *'Low-frequency gravity waves in blue supergiants revealed by high-precision space photometry'*
- J. S. G. Mombarg, T. Van Reeth, M. G. Pedersen, G. Molenberghs, **D. M. Bowman**, C. Johnston, A. Tkachenko, C. Aerts, (2019), MNRAS 485, Issue 3, 3248–3263, *'Asteroseismic masses, ages and core properties of γ Doradus stars using the asymptotic period spacing and spectroscopy'*
- P. V. F. Edelmann, R. P. Ratnasingam, M. G. Pedersen, **D. M. Bowman**, V. Prat, T. M. Rogers, (2019), ApJ 876, Issue 1, 4–24, *'Three-dimensional simulations of massive stars I. wave generation and propagation'*
- G. Handler, A. Pigulski, J. Daszyńska-Daszkiewicz, A. Irrgang, D. Kilkenny, Z. Guo, N. Przybilla, F. Kahraman Aliçavuş, T. Kallinger, J. Pascual-Granado, E. Niemczura, T. Różański, S. Chowdhury, D. L. Buzasi, G. M. Mirouh, **D. M. Bowman**, C. Johnston, M. G. Pedersen, S. Simón-Díaz, E. Moravveji, K. Gazeas, P. De Cat, R. K. Vanderspek, G. R. Ricker, (2019), ApJL 873, Issue 1, L4, *'Asteroseismology of massive stars with the TESS mission: the runaway β Cep pulsator PHL 346 = HN Aqr'*
- M. G. Pedersen, S. Chowdhury, C. Johnston, **D. M. Bowman**, C. Aerts, G. Handler, P. De Cat, C. Neiner, A. David-Uraz, D. Buzasi, A. Tkachenko, S. Simón-Díaz, E. Moravveji, J. Sikora, G. Mirouh, C. C. Lovekin, M. Cantiello, J. Daszyńska-Daszkiewicz, A. Pigulski, (2019), ApJL 872, Issue 1, L9, *'Diverse variability of O and B stars revealed from 2-minute light curves in sectors 1 and 2 of the TESS mission: selection of an asteroseismic sample'*
- C. Johnston, A. Tkachenko, C. Aerts, G. Molenberghs, **D. M. Bowman**, M. G. Pedersen, B. Buysschaert, P. I. Pápics, (2019), MNRAS 482, Issue 1, 1231–1246, *'Binary Asteroseismic Modelling: isochrone-cloud methodology and application to Kepler gravity mode pulsators'*
- **D. M. Bowman**, C. Aerts, C. Johnston, M. G. Pedersen, T. M. Rogers, P. V. F. Edelmann, S. Simón-Díaz, T. Van Reeth, B. Buysschaert, A. Tkachenko, S. A. Triana, (2019), A&A 621, A135, *'Photometric detection of internal gravity waves in upper main-sequence stars. I. Methodology and application to CoRoT targets'*

2018: 2 first author and 8 co-author publications

- D. L. Holdsworth, M. S. Cunha, H. Shibahashi, D. W. Kurtz, **D. M. Bowman**, (2018), MNRAS 480, Issue 3, 2976–2984, *'K2 observations of the rapidly oscillating Ap star 33 Lib (HD 137949): new frequencies and unique non-linear interactions'*
- D. L. Holdsworth, H. Saio, R. R. Sefako, **D. M. Bowman**, (2018), MNRAS 480, Issue 2, 2405–2410, *'LCO observations of a super-critical distorted pulsation in the roAp star J0855 (TYC 2488-1241-1)'*
- T. Van Reeth, J. S. G. Mombarg, S. Mathis, A. Tkachenko, J. Fuller, **D. M. Bowman**, B. Buysschaert, C. Johnston, A. García Hernández, J. Goldstein, R. H. D. Townsend, C. Aerts, (2018), A&A 618, A24, *'Sensitivity of gravito-inertial modes to differential rotation in intermediate-mass main-sequence stars'*
- B. Buysschaert, C. Neiner, A. J. Martin, C. Aerts, **D. M. Bowman**, M. E. Oksala, T. Van Reeth, (2018), MNRAS 478, Issue 2, 2777–2793, *'Detection of magnetic fields in chemically peculiar stars observed with the K2 space mission'*
- B. Buysschaert, C. Aerts, **D. M. Bowman**, C. Johnston, T. Van Reeth, M. G. Pedersen, C. Neiner, (2018), A&A 616, A77, *'Forward seismic modeling of the pulsating magnetic B-type star HD 43317'*
- **D. M. Bowman**, B. Buysschaert, C. Neiner, P. I. Pápics, M. E. Oksala, C. Aerts, (2018), A&A 616, A77, *'K2 space photometry reveals rotational modulation and stellar pulsations in chemically peculiar A and B stars'*
- C. Aerts, G. Molenberghs, M. Michielsen, M. G. Pedersen, R. Björklund, C. Johnston, J. S. G. Mombarg, **D. M. Bowman**, B. Buysschaert, P. I. Pápics, S. Sekaran, J. O. Sundqvist, A. Tkachenko, K. Truyaert, T. Van Reeth, E. Vermeyen, (2018), ApJS 237, 15–46, *'Forward asteroseismic modeling of stars with a convective core from gravity-mode oscillations: parameter estimation and stellar model selection'*
- **D. M. Bowman** and D. W. Kurtz, (2018), MNRAS 476, Issue 3, 3169–3184, *'Characterizing the observational properties of δ Sct stars in the era of space photometry from the Kepler mission'*
- C. Aerts, **D. M. Bowman**, S. Simón-Díaz, B. Buysschaert, C. Johnston, E. Moravveji, P. G. Beck, P. De Cat, S. Triana, S. Aigrain, N. Castro, D. Huber, T. White, (2018), MNRAS 476, Issue 1, 1234–1241, *'K2 photometry and HERMES spectroscopy of the blue supergiant ρ Leo: rotational wind modulation and low-frequency waves'*
- D. L. Holdsworth, H. Saio, **D. M. Bowman**, D. W. Kurtz, R. R. Sefako, M. Joyce, T. Lambert, B. Smalley, (2018), MNRAS 476, Issue 1, 601–616, *'Suppressed phase variations in a high amplitude rapidly oscillating Ap star pulsating in a distorted quadrupole mode'*

2016: 1 first author and 1 co-author publications

- **D. M. Bowman**, D. W. Kurtz, M. Breger, S. J. Murphy, D. L. Holdsworth, (2016), MNRAS 460, Issue 2, 1970–1989, *'Amplitude modulation in δ Sct stars: statistics from an ensemble study of Kepler targets'*
- D. W. Kurtz, **D. M. Bowman**, S. J. Ebo, P. Moskalik, R. Handberg, M. N. Lund, (2016), MNRAS 455, Issue 2, 1237–1245, *'EPIC 201585823, a rare triple-mode RR Lyrae star discovered in K2 mission data'*

2015: 1 first author and 2 co-author publications

- D. W. Kurtz, H. Shibahashi, S. J. Murphy, T. R. Bedding, **D. M. Bowman**, (2015), MNRAS 450, Issue 3, 3015–3029, *'A unifying explanation of complex frequency spectra of γ Dor, SPB and Be stars: combination frequencies and highly non-sinusoidal light curves'*

- E. Niemczura, S. J. Murphy, B. Smalley, K. Uytterhoeven, A. Pigulski, H. Lehmann, **D. M. Bowman**, G. Catanzaro, E. van Aarle, S. Bloemen, M. Briquet, P. De Cat, D. Drobek, L. Eyer, J. F. S. Gameiro, N. Gorlova, K. Kamiński, P. Lampens, P. Marcos-Arenal, P. I. Pápics, B. Vandenbussche, H. Van Winckel, M. Stęślicki, M. Fagas, (2015), MNRAS 450, Issue 3, 2764–2783, *'Spectroscopic survey of Kepler stars. I. HERMES/Mercator observations of A- and F-type stars'*
- **D. M. Bowman**, D. L. Holdsworth, D. W. Kurtz, (2015), MNRAS 449, Issue 1, 1004–1010, *'Combining WASP and Kepler data: the case of the δ Sct star KIC 7106205'*

2014: 1 first author publication

- **D. M. Bowman** and D. W. Kurtz, (2014), MNRAS 444, Issue 2, 1909–1918, *'Pulsational frequency and amplitude modulation in the δ Sct star KIC 7106205'*

XV. Monographs and Book Chapters

- **D. M. Bowman**, (2017), Springer Theses, Springer International Publishing AG (Springer Nature), *'Amplitude Modulation of Pulsation Modes in Delta Scuti Stars'*, DOI: 10.1007/978-3-319-66649-5, ISBN: 978-3-319-66648-8

XVI. Thesis

- **D. M. Bowman**, (2016), PhD Thesis, Jeremiah Horrocks Institute, University of Central Lancashire, UK, *'Amplitude modulation and energy conservation of pulsation modes in delta Scuti stars'*, URL: `http://clok.uclan.ac.uk/18788/`

XVII. Conference Proceedings

- **D. M. Bowman**, (2021), *'A review of recent asteroseismology results from the KU Leuven team'*, Proceedings of the conference BRITE-related science Meeting, held 12 July 2021 (virtually) in Innsbruck, Austria.
- A. J. Frost, L. Mahy, H. Sana, R. H. Barba, J. Barron, **D. M. Bowman**, M. Fabry, J.-B. Le Bouquin, N. I. Morrell, P. Marchant, A. Merand, M. Munoz, F. R. N. Schneider, T. Shenar, G. Wade, (2021), *'Observational evidence of coalescence as a viable cause of magnetism in massive stars'*, Proceedings of the conference OBA Stars: Variability and Magnetic Fields, held 26-30 April 2021 (virtually) in St. Petersburg, Russia, id.19.
- **D. M. Bowman**, (2021), *'Asteroseismology of massive stars: new insights of stellar interiors from their pulsations'*, Proceedings of the conference OBA Stars: Variability and Magnetic Fields, held 26-30 April 2021 (virtually) in St. Petersburg, Russia.
- J. Barron, G. A. Wade, **D. M. Bowman**, A. David-Uraz, S. Simón-Díaz and the MOBSTER Collaboration, (2020), *'MOBSTER: Identifying Candidate Magnetic O Stars through Rotational Modulation of TESS Photometry'*, Stellar Magnetism: A Workshop in Honour of the Career and Contributions of John D. Landstreet, held 8-11 July 2019 in London, Canada. Edited by G. Wade, E. Alecian, D. Bohlender, A. Sigut. Proceedings of the Polish Astronomical Society, Vol. 11. ISBN: 978-83-950430-9-3, pp. 226-235.
- A. David-Uraz, C. Neiner, J. Sikora, **D. M. Bowman**, P. Cerrahoglu, D. H. Cohen, C. Erba, O. Kobzar, V. Petit, A. ud-Doula, G. A. Wade and the MOBSTER Collaboration, (2020), *'MOBSTER: Establishing a Picture of Magnetic Massive Stars as a Population'*, Stellar Magnetism: A Workshop in Honour of the

Career and Contributions of John D. Landstreet, held 8-11 July 2019 in London, Canada. Edited by G. Wade, E. Alecian, D. Bohlender, A. Sigut. Proceedings of the Polish Astronomical Society, Vol. 11. ISBN: 978-83-950430-9-3, pp. 219-225.

- O. Kobzar, V. Khalack, D. Bohlender, A. David-Uraz, P. Kashko, **D. M. Bowman**, C. Lovekin, D. Tvardovskyi, M.Perron-Cormier, E. Paunzen, J. Sikora, P. Lampens and O. Richard, (2020), *'Study of slowly rotating CP stars observed with TESS'*, Stellar Magnetism: A Workshop in Honour of the Career and Contributions of John D. Landstreet, held 8-11 July 2019 in London, Canada. Edited by G. Wade, E. Alecian, D. Bohlender, A. Sigut. Proceedings of the Polish Astronomical Society, Vol. 11. ISBN: 978-83-950430-9-3, pp. 214-218.

- V. Prat, S. Mathis, B. Buysschaert, J. Van Beeck, **D. M. Bowman**, C. Aerts and C. Neiner, (2020), *'Effect of the magnetic field on period spacings of gravity modes in rapidly rotating stars'*, Proceedings of the conference 'Stars and their Variability Observed from Space', held in Vienna on August 19-23, 2019. Eds.: C. Neiner, W. W. Weiss, D. Baade, R. E. Griffin, C. C. Lovekin, A. F. J. Moffat. University of Vienna, 2020, pp.105-106

- A. David-Uraz, C. Neiner, J. Sikora, **D. M. Bowman**, P. Cerrahoglu, D. H. Cohen, C. Erba, O. Kobzar, V. Petit, A. ud-Doula, G. A. Wade and the MOBSTER Collaboration, (2020), *'Magnetic OB[A] stars with TESS: probing their evolutionary and rotational properties – the MOBSTER collaboration'*, Proceedings of the conference 'Stars and their Variability Observed from Space', held in Vienna on August 19-23, 2019. Eds.: C. Neiner, W. W. Weiss, D. Baade, R. E. Griffin, C. C. Lovekin, A. F. J. Moffat. University of Vienna, 2020, pp.471-474

- **D. M. Bowman**, (2020), *'What physics is missing in theoretical models of high-mass stars: new insights from asteroseismology'*, Proceedings of the conference 'Stars and their Variability Observed from Space', held in Vienna on August 19-23, 2019. Eds.: C. Neiner, W. W. Weiss, D. Baade, R. E. Griffin, C. C. Lovekin, A. F. J. Moffat. University of Vienna, 2020, pp.53-59

- **D. M. Bowman**, C. Aerts, C. Johnston, M. G. Pedersen, T. M. Rogers, P. V. F. Edelmann, S. Simón-Díaz, T. Van Reeth, B. Buysschaert, A. Tkachenko, S. A. Triana, (2018), *'Photometric detection of internal gravity waves in early-type stars observed by CoRoT'*, EPJ Web of Conferences, PHOST: Physics of Oscillating Stars – a conference in honour of Prof. H. Shibahashi, 2-7 Sept. 2018, Banyuls-sur-mer, France. Edited by J. Ballot, S. Vauclair, G. Vauclair.

- **D. M. Bowman**, D. W. Kurtz, M. Breger, S. J. Murphy, D. L. Holdsworth, (2017), *'Amplitude modulation in δ Sct stars: statistics from an ensemble of Kepler targets'*, EPJ Web of Conferences, Volume 160, id.03008, Seismology of the Sun and the Distant Stars – Using Today's Successes to Prepare the Future – TASC2 & KASC9 Workshop – SPACEINN & HELAS8 Conference, Azores Islands, Portugal. Edited by M. J. P. F. G. Monteiro, M. S. Cunha, J. M. T. S. Ferreira.

- **D. M. Bowman** and D. W. Kurtz, (2015), *'Amplitude Modulation in the δ Sct star KIC 7106205'*, EPJ Web of Conferences, Volume 101, id.06013, The Space Photometry Revolution – CoRoT Symposium 3, *Kepler* KASC-7 Joint Meeting, Toulouse, France. Edited by R. A. García, J. Ballot.

XVIII. **Varia**

- RAS ECN committee, **D. M. Bowman**, M. Maunder, F. Richards, D. Boubert, A. O'Brien, (2021), Astronomy & Geophysics, Volume 62, Issue 4, 4.12–4.14, *'Hear it through the grapevine: a perspective of the RAS Early Career Network's first career event'*

- RAS ECN committee, A. O'Brien, D. Boubert, **D. M. Bowman**, F. Richards, M. Maunder, (2021), Astronomy & Geophysics, Volume 62, Issue 1, 1–19, *'Pandemic Posters'*

- A. Tkachenko, C. Aerts, **D. M. Bowman**, T. Van Reeth, J. De Ridder, C. Johnston, M. G. Pedersen, S. Burssens, M. Michielsen, J. Mombarg, S. Sekaran, R. Bjorklund, T. Rogers, P. V. F. Edelmann, R. P. Ratnasingam, K. Zwintz, J. Kollmeier, J. Johnson, H-W. Rix, J. Tayar, (2019), Astro2020: Decadal Survey on Astronomy and Astrophysics, science white papers, no. 198; Bulletin of the American Astronomical Society, Vol. 51, Issue 3, id. 198, *'Astro2020 Science White Paper: gravity-wave asteroseismology of intermediate- and high-mass stars'*