Dominic M. Bowman

PhD, MSci. (Hons), FRAS, MInstP

Reader in Astrophysics and Royal Society University Research Fellow

Work: School of Mathematics, Statistics and Physics, Newcastle University, Newcastle upon Tyne, NE1 7RU, UK

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I. Personal Statement

I currently hold a Readership faculty position, a Royal Society University Research Fellowship, and a UKRI Frontier Research Grant (SYMPHONY) based at Newcastle University. 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, which yields tight constraints on their interior physics such as rotation, mixing, magnetism, and angular momentum transport. I am passionate and actively involved in developing teaching at the BSc, MSc and PhD level, and mentoring, advocacy and outreach activities 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 the University of Central Lancashire in the UK under the supervision of Prof. Donald Kurtz, and my thesis was published as a Springer monograph. I moved to KU Leuven in Belgium in 2017 to become a postdoctoral researcher, and in 2020 I was awarded a competitive 3-yr FWO research fellowship, during which I published several high-impact first-author papers including in Nature Astronomy. I have won several prestigious prizes for research excellence, including the Springer Thesis Prize (2017), the KU Leuven Research Council Award in Science, Engineering and Technology (2020), the Henri Vanderlinden Prize of the Flemish Academy (2022), and the George Darwin Lectureship of the Royal Astronomical Society (2023).

II. Education

PhD in Astronomy Oct 2013 – Nov 2016

Thesis title of *'Amplitude modulation and energy conservation of pulsation modes in delta Scuti stars'*, awarded outright (no corrections) 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).

MSci in Physics and Astrophysics Sept 2009 – June 2013

First-class with honours integrated Master (BSc + MSc) in Science (MSci) degree in Physics and Astrophysics from the University of Birmingham, with an award date of 8 July 2013.

III. Employment

Reader in Astrophysics 1 Sept 2023 – date

School of Mathematics, Statistics and Physics, Newcastle University, Newcastle upon Tyne, NE1 7RU, UK.

Guest Professor 1 Sept 2023 – date

Institute of Astronomy, KU Leuven, Celestijnenlaan 200D, 3001 Leuven, Belgium.

FWO Senior Postdoctoral Fellowship 1 Nov 2020 – 31 Aug 2023

Institute of Astronomy, KU Leuven, Celestijnenlaan 200D, 3001 Leuven, Belgium. Independent and personal mandate funded by Fonds Wetenschappelijk Onderzoek (FWO) Vlaanderen (grant agreement N^{o} 1286521N).

Postdoctoral Research Associate 1 Feb 2017 – 31 Oct 2020

Institute of Astronomy, KU Leuven, Celestijnenlaan 200D, 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, UK.

IV. Scientific Prizes, Awards and Competitive Grant Funding

Multiple prestigious prizes for scientific excellence and having an upwards career trajectory. My funding portfolio as PI from successful competitive applications to date exceeds **€ 5 M (£ 4.4 M)**, which includes international research councils and charities including the Royal Society, UKRI, ERC, FWO, and several universities.

Scientific Prizes and Awards:

George Darwin Lectureship, RAS Jan 2023
Awarded the 2023 George Darwin Lectureship of the Royal Astronomical Society (RAS) for being an authoritative and engaging researcher in astronomy.

Henri Vanderlinden Prize, Royal Flemish Academy Dec 2022
Prestigious and competitive prize for an important original work in the field of astronomy from the Koninklijke Vlaamse Academie van België (KVAB) voor Wetenschappen en Kunsten, which included a cash prize.

Research Council Award (POR), KU Leuven May 2020
Prestigious and highly-competitive prize from KU Leuven's Research Council awarded to one postdoc in STEM for research excellence and an upwards career trajectory, which included € 20 000 of research funding.

Springer Thesis Award Oct 2017
My PhD thesis was published in the Springer thesis series in 2017 for 'Outstanding PhD Research'. This prestigious prize allowed me to expand my thesis into a monograph and included a cash prize.

Successful Competitive Grant Applications:

Royal Society University Research Fellowship Dec 2023 – Nov 2031
Awarded a Royal Society University Research Fellowship (URF) worth £1,380,000 (€ 1,730,000) for my ECLIPSE project (grant agreement number: [URF\R1\231631]) focussed on massive stars in eclipsing binaries.

ERC-StG-2023 Sept 2023
Invited to sign grant agreement for 2023 call of ERC starting grant (€ 1,500,000). Unable to sign ERC grant agreement because UK was at the time not formally associated to ERC Horizon framework.

ERC-StG-2022 / UKRI Frontier Research Grant Oct 2023 – Sept 2028
Invited to sign grant agreement for 2022 call of ERC starting grant (€ 1,500,000) for my SYMPHONY project focused on blue supergiant asteroseismology. Unable to sign ERC grant agreement because UK was at the time not formally associated to ERC Horizon framework. Awarded equal funding under UKRI's Horizon Guarantee Scheme to implement the SYMPHONY project at a UK host institution (£1,300,000) as a Frontier Research Grant (grant agreement number [EP/Y031059/1]).

FWO Postdoctoral Fellowship Nov 2020 – Aug 2023
Senior postdoctoral fellowship of Fonds Wetenschappelijk Onderzoek (FWO) Vlaanderen (grant agreement number [1286521N]; € 260,000) for my TESSERACT asteroseismology project.

FWO Long Stay Abroad Grant Oct - Dec 2021
I was awarded a competitive FWO grant for a long research stay abroad to cover all costs for my invited visit to KITP, California, USA for 3 months in 2021, for a total of approximately € 6000.

Conference Organisation Sept 2015
Funding of £3000 from the Royal Astronomical Society (RAS) and £7000 from UCLan for organisation of the STARS2016 conference together with Dr. Daniel Holdsworth.

Small Travel Grants
Numerous travel bursary applications from funding bodies for attending conferences, which include STFC and RAS in the UK, CNRS in France and FWO in Belgium, with a combined total of approximately € 5000.

V. Conference Organisation

Three times (co-)chair of an SOC, twice chair of an LOC, and twice a member of an SOC for large (80+ people) international conferences.

TASC8/KASC15, *Porto, Portugal* 15 – 19 July 2024
SOC member for the TASC8/KASC15 conference of the asteroseismic community.

EAS 2023, *Kraków, Poland* 10 – 14 July 2023
SOC member of the BRITE/MOBSTER symposium entitled 'From stellar variability to stellar structure and evolution' at the EAS 2023 meeting.

TASC6/KASC13, *Leuven, Belgium* 11 – 15 July 2022
Chair of the LOC for the TASC6/KASC13 conference of the asteroseismic community, which was held in Leuven, had 200 in-person and 100+ online 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.

MOBSTER-1, *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.

EAS 2020, *Virtual (hosted by Leiden University, the Netherlands)* 29 June – 3 July 2020
Chair of the SOC of the session titled 'New insights of angular momentum transport in stellar interiors' held on 1 June during the EAS 2020 meeting, which had 100 participants.

STARS2016, *Windermere, UK* 11 – 15 Sept 2016
Chair of the LOC for the conference celebrating the career of Prof. Donald Kurtz, which had 75 participants and a budget of €50 000. Successful grant applications included €3500 from the RAS and €8000 from UCLan.

VI. Personal Training

IOP workshop, *Northumbria University* 8 Dec 2023
Full-day training workshop from higher education and early-career groups of the Institute of Physics (IOP) on best practices of PhD student supervision.

Onboarding Faculty Training, *Newcastle University* Sept 2023
Several seminars and training sessions on EDI, GDPR, project management, student welfare and supervision.

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

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

Voice of the future, *Westminster, London, UK* 15 Mar 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, Committees and Service

Review Editor, MDPI Galaxies Sept 2023 – date

Review editor and editorial board member for the MDPI journal *Galaxies*.

Executive Organising Committee Member, IAU WGABS Nov 2022 – date

Executive organising committee member for the active B-star working group (WGABS) of the IAU.

WG Chair, Arago space mission Jan 2022 – date

Chair of the 'Hot (BA) Stars' working group for the Arago mission, which was a candidate M7 ESA space mission on UV+Visible spectropolarimetry of stars across the HR diagram.

Associate Editor, Frontiers Feb 2021 – date

Editorial board member and Associate Editor for Stellar and Solar Physics and the journals *Frontiers in Astronomy and Space Sciences* and *Frontiers in Physics*.

XShootU WG12 chair Dec 2020 – date

Point of contact (chair) of WG12: pulsations of ULLYSES targets within the XShootU collaboration.

co-PI MOBSTER collaboration Nov 2020 – date

Together with PI A. David-Uraz and co-PI C. Neiner, we organise and maximise the scientific productivity of the MOBSTER collaboration, which leverages TESS data to identify and study massive magnetic stars.

SHOC/SAAO and MAIA/Mercator pipeline developer July 2020 – date

I am principal author of the TEA-PHOT pipeline to reduce data and extract light curves from the SHOC/SAAO and the MAIA/Mercator instruments. The TEA-PHOT pipeline is published: Bowman & Holdsworth (2019, A&A 629, A21), and is endorsed by the SAAO instrument team as the go-to reduction pipeline.

BEST member Sept 2019 – date

Non-voting member of the BRITE Executive Science Team (BEST) for the BRITE-constellation space mission.

CubeSpec space mission Jan 2019 – date

Scientific advisor and consortium member for the massive star asteroseismology science case of the CubeSpec cubesat mission being built by KU Leuven in collaboration with ESA and private contractors.

Journal Peer Reviewer Oct 2016 – date

35+ times invited peer reviewer of international publications in journals: Nature Astronomy, Nature Communications, A&A, MNRAS, ApJ, AJ, and Frontiers in Astronomy and Space Science.

Previous Responsibilities:

Good Vibrations seminar series Nov 2020 – March 2023

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

RAS ECN committee member June 2020 – March 2023

Secretary for the Early Career Network (ECN) of the UK Royal Astronomical Society (RAS).

ESO OPC expert panel member Sept 2021 to Jan 2023

Observing Program Committee (OPC) expert panel member in panel D (Stellar Evolution) for European Southern Observatory (ESO) proposal semesters P109 – P111. Co-Chair of my panel in semester P111.

PLATO external reviewer Nov 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

International Astronomical Union Jan 2020 – date
Elected a junior member of the International Astronomical Union (IAU).

European Astronomical Society April 2019 – date
Member of the European Astronomical Society.

Royal Astronomical Society Oct 2013 – date
Elected a Fellow of the Royal Astronomical Society (RAS), which permits the use of the post-nominal FRAS.

Institute of Physics Oct 2013 – date
Member of the Institute of Physics (IOP), which permits the use of the post-nominal MInstP.

IX. Observing Projects and Experience

Successful telescope proposals as PI and co-PI with competitive ground-based observatories totalling more than **1750 hours**, and four successful TESS guest investigator proposals as PI targeting 1800+ massive stars.

Stellar Oscillation Network Group (SONG), *Tenerife, Spain*

- PI of programme in period 13 (Summer 2023) to obtain time-series spectroscopy of high-mass pulsating eclipsing binaries *(23.AST-07; 260 hr; PI Bowman)*.

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 large programme obtaining multi-epoch spectroscopy of massive stars in the SMC with FLAMES *(112.25R7; 120 hr; PI Shenar)*.
- Co-I of programme obtaining Gravity interferometry of the eclipsing Be binary system HD 93683 *(109.23H0; 12 hr; PI Bodensteiner)*.
- Co-PI of programme obtaining multi-epoch high-resolution spectroscopy of gamma Doradus stars with UVES *(106.21S8.001; 106.21S8.002; 106.21S8.003; 21 hr; PI Christophe)*.
- Co-PI of programme obtaining multi-epoch high-resolution spectroscopy of massive binary stars with FEROS *(0106.A-9106; 90 hr; PI Aerts)*.
- Co-PI of large programme obtaining multi-epoch high-resolution spectroscopy of massive stars with UVES *(1104.D-0230; 120 hr; PI Tkachenko)*.
- Co-PI of programme obtaining multi-epoch high-resolution spectroscopy of massive stars with FEROS *(0104.A-9001; 120 hr; PI Aerts)*.
- Co-I of 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 four TESS Guest Investigator proposals obtaining high-precision and short-cadence time series photometry of massive stars in cycle 3 in 2020 *(GO3059; 1058 stars; PI Bowman)*, cycle 4 in 2021 *(GO4074; 1618 stars; PI Bowman)*, cycle 5 in 2022 *(GO5036; 1818 stars; PI Bowman)*, and cycle 6 in 2023 *(GO6037; 1594 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*
65 nights of observing experience using the HERMES and MAIA instruments on the 1.2-m Mercator telescope between 2017 and 2022, which included visitor mode and service observing.

- PI of HERMES large program awarded 1000+ hr across 2022-2025 to obtain multi-epoch spectroscopy of pulsating massive stars discovered by TESS.
- PI of HERMES proposal awarded 80 hr in semester 2021a to obtain time-series spectroscopy of high-mass pulsating eclipsing binaries discovered by TESS.
- PI of MAIA proposal awarded 120 hr in semester 2020b to obtain 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 obtain spectroscopy of Ap stars being observed by TESS.
- PI of a HERMES proposal awarded 60 hr in semester 2018a to obtain 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*
20 nights of observing experience using the imager on 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

Supervisor of **1** ongoing PhD student, supervisor of **2** PhD students to completion, and member of a further **4** PhD examination committees. Supervisor of **6** MSc students to completion, and member of a further **5** MSc thesis examination committees.

PhD Theses, Newcastle University, UK

- **Supervisor** of Federica Nardini — Jan 2024 – date
  Asteroseismology of massive binary systems

PhD Theses, KU Leuven, Belgium

- Progress and examination committee (jury) member of Joris Hermans — Sept 2019 – Nov 2023
  Understanding the influence of cooling curves and flow on thermal instability
- **Co-Supervisor** of Jordan Van Beeck — Sept 2019 – Sept 2023
  Asteroseismology of Kepler B stars: internal magnetism and nonlinear mode coupling
- Examination committee (jury) member of Mathias Michielsen — Nov 2022
  Forward seismic modelling of B-type stars
- **Supervisor** of Siemen Burssens — Sept 2018 – July 2022
  Massive star asteroseismology with K2 and TESS

- Progress and examination committee (jury) member of Joey S. G. Mombarg — Feb 2018 – Feb 2022
  Asteroseismic modelling of intermediate-mass stars
- Examination committee (jury) member of Camilla Scolini — May 2020
  Magnetised coronal mass ejections: evolution from the Sun to 1 AU and geo-effectiveness
- Long-stay host research supervisor of Mariel Lares-Martiz — Sept 2019 – Dec 2019
  Non-linear terms in delta Scuti stars power spectra

Master Theses, KU Leuven, Belgium

- **Supervisor** of Pieterjan Van Daele — Sept 2022 – June 2023
  New algorithms to extract blended TESS photometry of massive stars
- Examination committee member (reader) of Thijs Verhaeghe — June 2022
  A target scheduling heuristic for CubeSpec
- **Supervisor** of Stijn Rutten — Sept 2021 – Sept 2022
  A new user-friendly aperture photometry pipeline for MAIA: variability in pulsating stars
- **Supervisor** of Nagaraj Vernekar — Sept 2020 – Sept 2021
  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 – June 2019
  Testing stellar evolution with selected high-amplitude delta Scuti stars
- **Supervisor** of Sven Nys — Sept 2018 – June 2019
  Asteroseismic modelling of gravity modes in selected intermediate-mass stars
- **Co-Supervisor** of Jordan Van Beeck — Sept 2018 – 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

Master Courses and Modules

- **Lecturer**, *KU Leuven, Belgium* — Sept 2022 – Aug 2023
  Responsible person for delivering MSc Asteroseismology course (30 students; 6 ECTS).
- **Lecturer**, *KU Leuven, Belgium* — Sept 2019 – Aug 2023
  Responsible person for delivering the MSc thesis defence preparation course (20+ students).

Undergraduate (BSc) Courses and Modules

- **Bachelor and master student projects**, *Newcastle University, UK* — Sept 2023 – date
  Supervision of multiple bachelor and master student (group) projects.
- **Bachelor and master student projects**, *KU Leuven, Belgium* — Sept 2017 – Aug 2023
  Supervision of multiple bachelor and master student projects in asteroseismology.

- **Guest Lecturer**, *University of Innsbruck, Austria* May 2021
  Lecture on massive stars for asteroseismology course of Prof. Konstanze Zwintz.
- **Module Examiner**, *KU Leuven, Belgium* Sept 2017 – July 2019
  Examiner for the Bachelor science communication and MSc Asteroseismology courses.
- **Lecturer**, *UCLan, UK* Sept 2016 – Jan 2017
  Responsible person for delivering first-year Bachelor 'Introduction to Statistics' (MA1861; 30 students; 6 ECTS), 'Stellar Structure and Evolution' (AA1051; 25 students; 6 ECTS), and organisation of second-year Bachelor astronomy laboratories at UCLan's Alston observatory (AP2060; 25 students; 6 ECTS).

XI. Scientific Conferences and Workshops

Attendance of **47** international conferences and workshops.

LENAH workshop, *Newcastle, UK* 12 – 14 Dec 2023

BRIDGCE/IReNA consortium meeting, *Edinburgh, UK* 11 – 13 Sept 2023

TASC7/KASC14, *Honolulu, Hawai'i, USA* 17 – 21 July 2023

NAM 2023, *Cardiff, UK* 3 – 7 July 2023

Lorentz Workshop, *Leiden, the Netherlands* 26 – 30 June 2023

SDSS-V/IReNA/CeNAM Science Festival, *Leuven, Belgium* 3 – 7 April 2023

VFTS, *Garching, Germany* 27 – 29 March 2023

TASC6/KASC13, *Leuven, Belgium* 11 – 15 July 2022
Chair of the LOC of the annual asteroseismic consortium meeting.

IAUS361: Massive Stars Near and Far, *Ballyconnell, Ireland* 8 – 13 May 2022

KITP program, *Santa Barbara, California, USA* 11 Oct – 17 Dec 2021
I was an invited participant and was awarded a competitive FWO long stay abroad grant to cover the costs. This program also included a conference between 11-18 November at which I was an invited panellist speaker.

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

BRITE-related Science Meeting, *Virtual (hosted by Innsbruck University, 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'.

IAUS361: 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

Total of **9 invited** and **14 contributed** talks at international conferences and **24** seminars/colloquia.

Conference Talks

- George Darwin Lecture **(Invited)**, *RAS, London, UK* — 12 Jan 2024
- BRIDGCE/IReNA meeting (Contributed), *Edinburgh, UK* — 11 Sept 2023
- TASC7/KASC14 (Contributed), *Honolulu, Hawai'i, USA* — 18 July 2023
- National Astronomy Meeting (NAM) (Contributed), *Cardiff, UK* — 5 July 2023
- IAUS361: Massive Stars Near and Far (Contributed), *Ballyconnell, Ireland* — 10 May 2022
- Probes of Transport in Stars (**Invited**), *KITP, UCSB, USA* — 15 Nov 2021
- Probes of Transport in Stars (**Invited**), *KITP, UCSB, USA* — 12 Oct 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
- IAUS361 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

- HITS, Heidelberg, Germany — 22 Nov 2023
- Newcastle University, UK — 1 Nov 2023
- Newcastle University, UK — 25 Oct 2023
- Amsterdam University, the Netherlands — 10 May 2023
- ESO, Santiago, Chile — 9 Feb 2023
- (Virtual) Thüringer Landessternwarte (TLS) Tautenburg, Germany — 24 Nov 2022
- Newcastle University, UK — 2 Nov 2022

- (Virtual) Chinese University of Hong Kong — 2 June 2022
- (Virtual) MPA, Germany — 20 April 2022
- (Virtual) University of Geneva, Switzerland — 14 April 2022
- (Virtual) Sheffield University, UK — 6 Oct 2021
- KU Leuven, Belgium — 1 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 over 50 outreach events for school students and amateur astronomer societies in the UK and Belgium reaching thousands of people. 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 continuing to provide high-calibre outreach activities throughout my career. Below are some examples of my ongoing activities.

Newcastle University

- Two astronomy engagement talks for high-school students aged 16 on 31 Jan 2024.
- Astronomy engagement (virtual) talks for undergraduate physics students in Kenya on 24 Jan 2024.
- Participant of the Skype a Scientist program, for which I led over a dozen online astronomy discussions with international participants, including school classrooms and families.

KU Leuven, Belgium

- Teaching Fellow of the World Science Scholar program of the World Science Foundation for the academic year 2022-2023, in which 60+ gifted and talented high school students from across the globe were selected to expand their mathematical abilities with inspiring university-level topics led by world-renowned scientists.
- Participant of the Scientist@School program, for which I provided over a dozen astronomy-themed talks and activities for local Belgian schools, with classes up to approximately 30 students aged 14–18.
- 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.
- Interviewed for the Astronomer job profile for the UK prospects career advice website in 2021.
- 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 150 attendees.
- Workshops on space exploration and the solar system at the KU Leuven Kids University, for 30 students aged 8–13 on 5 May 2018 and 22 October 2022.
- 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.

UCLan

During my PhD, my outreach events included supervising dozens of trips for members of the public to visit the 0.7-m telescope at Alston Observatory and giving an interactive tours of the night sky using the modern planetarium. I also visited over 20 primary and secondary schools to give talks and run astronomy-themed group activities for classes of about 30 students aged 6–16.

XIV. Peer-Reviewed Scientific Publications

As of 15 January 2024, my citation metrics are:

Google scholar: 3388 citations and h-index of 35 **NASA ADS:** 3000 citations and h-index of 33

Total of **17** peer-reviewed papers as first-author, and **74** as co-author (of which **20** as second or third author).

Submitted papers currently under review:

- W. R. Thompson, F. Herwig, P. R. Woodward, H. Mao, P. Denissenkov, **D. M. Bowman**, S. Blouin, *(submitted, MNRAS)*, *'3D hydrodynamic simulations of massive main-sequence stars. II. Convective excitation and spectra of internal gravity waves'*

Accepted papers currently in press:

- A. J. Frost, H. Sana, L. Mahy, G. Wade, J. Barron, J.-B. Le Bouquin, A. Mérand, F. R. N. Schneider, T. Shenar, R. H. Barba, **D. M. Bowman**, M. Fabry, A. Farhang, P. Marchant, N. I. Morrell, M. Munoz, J. V. Smoker *(in press)*, *'Observational evidence of mergers being a viable cause of magnetism in massive stars'*
- A. Tkachenko, K. Pavlovski, N. Serebriakova, **D. M. Bowman**, L. IJspeert, S. Gebruers, J. Southworth, (in press, A&A), *'Observational mapping of the mass discrepancy in eclipsing binaries. Selection of the sample and its photometric and spectroscopic properties'*
- K. Zwintz, A. Pigulski, R. Kuschnig, G. A. Wade, G. Doherty, M. Earl, C. Lovekin, M. Müllner, S. Piché-Perrier, T. Steindl, P. G. Beck, K. Bicz, **D. M. Bowman**, G. Handler, B. Pablo, A. Popowicz, T. Różański, P. Mikołajczyk, D. Baade, O. Koudelka, A. F. J. Moffat, C. Neiner, P. Orleański, R. Smolec, N. St. Louis, W. W. Weiss, M. Wenger, E. Zocłońska, *(in press, A&A)*, *'Catalogue of BRITE-Constellation. I. Fields 1 to 14 (November 2013 – April 2016)'*
- J. S. Vink, P. Crowther, A. Fullerton, M. Garcia, F. Martins, N. Morrell, L. Oskinova, N. St. Louis, A. ud-Doula, A. Sander, H. Sana, J.-C. Bouret, B. Kubatova, P. Marchant, L. P. Martins, A. Wofford, J. van Loon, G. O. Telford, Y. Götberg, **D. M. Bowman**, C. Erba, V. Kalari, The XShootU Collaboration, (in press, ESO Messenger), *'Xshooting ULLYSES: Massive Stars at Low Metallicity'*

Published articles:

- D. L. Holdsworth, M. S. Cunha, M. Lares-Martiz, D. W. Kurtz, V. Antoci, S. Barceló Forteza, P. De Cat, A. Derekas, C. Kayhan, D. Ozuyar, M. Skarka, D. R. Hey, F. Shi, **D. M. Bowman**, O. Kobzar, A. Ayala Gómez, Zs. Bognár, D. L. Buzasi, M. Ebadi, L. Fox-Machado, A. García Hernández, H. Ghasemi, J. A. Guzik, G. Handler, A. Hasanzadeh, R. Jayaraman, V. Khalack, O. Kochukhov, C. C. Lovekin, P. Mikołajczyk, D. Mkrtichian, S. J. Murphy, E. Niemczura, B. G. Olafsson, J. Pascual-Granado, E. Paunzen, N. Posiłek, A. Ramón-Ballesta, H. Safari, A. Samadi-Ghadim, B. Smalley, Á. Sódor, I. Stateva, J. C. Suárez, R. Szabó, T. Wu, E. Ziaali, W. Zong, (2024), MNRAS, Volume 527, Issue 4, 9548–9580, *'TESS Cycle 2 observations of roAp stars with 2-min cadence data'* [ADS link]

2023: 2 first author and 11 co-author publications

- **D. M. Bowman**, (2023), Astrophysics and Space Science, Volume 368, Issue 12, 107, *'Making waves in massive star asteroseismology'* [ADS link]
- **D. M. Bowman**, J. Van Saders, J. Vink, (2023), Galaxies, Volume 11, Issue 5, 94, *'The Structure and Evolution of Stars: Introductory Remarks'* [ADS link]
- T. Shenar, G. Wade, P. Marchant, S. Bagnulo, J. Bodensteiner, **D. M. Bowman**, A. Gilkis, N. Langer, A. Nicholas-Chené, L. Oskinova, T. Van Reeth, H. Sana, N. St-Louis, A. Soares de Oliveira, H. Todt, S. Toonen, (2023), Science, Volume 381, Issue 6659, 761–765, *'A massive helium star with a sufficiently strong magnetic field to form a magnetar'* [ADS link]

- N. Serebriakova, A. Tkachenko, S. Gebruers, **D. M. Bowman**, T. Van Reeth, L. Mahy, S. Burssens, L. IJspeert, H. Sana, C. Aerts, (2023), A&A 676, A85, *'The ESO UVES/FEROS Large Programs of TESS OB pulsators. I. Global stellar parameters from high-resolution spectroscopy'* [ADS link]
- R. Monier, **D. M. Bowman**, Y. Lebreton, M. Deal, (2023), AJ, Volume 166, Issue 2, 73 *'The unexpected optical and ultraviolet variability of the standard star α Sex (HD 87887)'* [ADS link]
- R. Monier, E. Niemczura, D. W. Kurtz, S. Rappaport, **D. M. Bowman**, S. J. Murphy, Y. Lebreton, R. Stuik, M. Deal, T. Merle, T. Kiliçoğlu, M. Gebran, E. Le Ster, (2023), AJ, Volume 166, Issue 2, 54, *'The surface composition of six newly discovered chemically peculiar stars. Comparison to the HgMn stars μ Lep and β Scl and the superficially normal B star ν Cap'* [ADS link]
- A. I. Henriksen, V. Antoci, H. Saio, F. Grundahl, H. Kjeldsen, T. Van Reeth, **D. M. Bowman**, P. I. Pápics, P. de Cat, J. Kruger, and the SONG team, (2023), MNRAS Volume 524, Issue 3, 4196–4211, *'Unresolved Rossby and gravity modes in 214 A and F stars showing rotational modulation'* [ADS link]
- J. S. Vink, A. Mehner, P. A. Crowther, A. Fullerton, M. Garcia, F. Martins, N. Morrell, L. M. Oskinova, N. St-Louis, A. ud-Doula, A.A.C. Sander, H. Sana, J.-C. Bouret, B. Kubátová, P. Marchant, L. P. Martins, A. Wofford, J. Th. van Loon, O. Grace Telford, Y. Götberg, **D. M. Bowman**, C. Erba, V. M. Kalari, M. Abdul-Masih, T. Alkousa, F. Backs, C. L. Barbosa, S.R. Berlanas, M. Bernini-Peron, J. M. Bestenlehner, R. Blomme, J. Bodensteiner, S. A. Brands, C. J. Evans, A. David-Uraz, F. A. Driessen, K. Dsilva, S. Geen, V. M. A. Gómez-González, L. Grassitelli, W.-R. Hamann, C. Hawcroft, A. Herrero, E. R. Higgins, D. J. Hillier, R. Ignace, A. G. Istrate, L. Kaper, N. D. Kee, C. Kehrig, Z. Keszthelyi, J. Klencki, A. de Koter, R. Kuiper, E. Laplace, C. J. K. Larkin, R. R. Lefever, C. Leitherer, L. Mahy, J. Maíz Apellániz, G. Maravelias, W. Marcolino, A. F. McLeod, S. E. de Mink, F. Najarro, M. S. Oey, T. N. Parsons, D. Pauli, M. G. Pedersen, R.K. Prinja, V. Ramachandran, M. C. Ramírez-Tannus, G. N. Sabhahit, A. Schootemeijer, S. Reyero Serantes, T. Shenar, G. S. Stringfellow, N. Sudnik, F. Tramper, L. Wang, (2023), A&A, 675, A154, *'X-Shooting ULLYSES: Massive Stars at low metallicity. I. Survey Description'* [ADS link]
- N. Vernekar, A. Subramaniam, V. V. Jadhav, **D. M. Bowman**, (2023), MNRAS Volume 524, Issue 1, 1360–1373, *'Photometric variability of blue straggler stars in M67 with TESS and K2'* [ADS link]
- S. Burssens, **D. M. Bowman**, M. Michielsen, S. Simón-Díaz, C. Aerts, V. Vanlaer, G. Banyard, N. Nardetto, R. H. D. Townsend, G. Handler, J. S. G. Mombarg, R. Vanderspek, G. Ricker, (2023), Nature Astronomy, Volume 7, 913–930, *'A calibration point for stellar evolution from massive star asteroseismology'* [ADS link]
- D. Pauli, L. M. Oskinova, W.-R. Hamann, **D. M. Bowman**, H. Todt, T. Shenar, A. A. C. Sander, C. Erba, V. M. A. Gómez-González, C. Kehrig, J. Klencki, R. Kuiper, A. Mehner, S. E. de Mink, M. S. Oey, V. Ramachandran, A. Schootemeijer, S. Reyero Serantes, A. Wofford, (2023), A&A, 673, A40 *'Spectroscopic and evolutionary analyses of the binary system AzV 14 outline paths towards the WR stage at low-metallicity'* [ADS link]
- T. Van Reeth, C. Johnston, J. Southworth, J. Fuller, **D. M. Bowman**, L. Poniatowski, J. Van Beeck, (2023), A&A, 671, A121 *'Tidally perturbed g-mode pulsations in a sample of close eclipsing binaries'* [ADS link]
- C. Johnston, A. Tkachenko, T. Van Reeth, **D. M. Bowman**, K. Pavlovski, H. Sana, S. Sekaran, (2023), A&A, 670, A167, *'Tidal perturbations and geometric effects on the pulsations in the hierarchical triple system U Gru'* [ADS link]

2022: 2 first author and 12 co-author publications

- **D. M. Bowman**, T. Z. Dorn-Wallenstein, (2022), A&A, 668, A134, *'Photometric detection of internal gravity waves in upper main-sequence stars. III. Comparison of amplitude spectrum fitting and Gaussian process regression using* CELERITE2*'* [ADS link]
- J. Southworth, **D. M. Bowman**, (2022), The Observatory, 142, 161-173, *'Rediscussion of eclipsing binaries. Paper X. The pulsating B-type system V1388 Orionis'* [ADS link]
- J. Tayar, F. D. Moyano, M. Soares-Furtado, A. Escorza, M. Joyce, S. L. Martell, R. A. García, S. N. Breton, S. Mathis, S. Mathur, V. Delsanti, S. Kiefer, S. Reffert, **D. M. Bowman**, T. Van Reeth, S. Shetye, C. Gehan,

S. K. Grunblatt, (2022), ApJ, Volume 940, Issue 1, 23, *'Spinning up the Surface: Evidence for Planetary Engulfment or Unexpected Angular Momentum Transport?'* [ADS link]

- O. Kobzar, V. Khalack, D. Bohlender, G. Mathys, M. Shultz, **D. M. Bowman**, E. Paunzen, C. Lovekin, A. David-Uraz, J. Sikora, P. Lampens, O. Richard, (2022), MNRAS Volume 517, Issue 4, 5340–5357, *'Analysis of eight magnetic chemically peculiar stars with rotational modulation'* [ADS link]
- S. Gebruers, A. Tkachenko, **D. M. Bowman**, T. Van Reeth, S. Burssens, L. IJspeert, L. Mahy, I. Straumit, M. Xiang, H.-W. Rix, C. Aerts, (2022), A&A, 665, A36, *'Analysis of high-resolution FEROS spectroscopy for a sample of variable B-type stars assembled from TESS photometry'* [ADS link]
- L. Mahy, H. Sana, T. Shenar, M. Abdul-Masih, G. Banyard, J. Bodensteiner, **D. M. Bowman**, K. Dsilva, M. Fabry, C. Hawcroft, N. Langer, P. Marchant, T. Van Reeth, C. Eldridge, (2022), A&A, 664 A159, *'Identifying quiescent compact objects in massive Galactic single-lined spectroscopic binaries'* [ADS link]
- Z. T. Spetsieri, P. Boumis, A. Chiotellis, S. Akras, S. Derlopa, S. Shetye, D. M.-A. Meyer, **D. M. Bowman**, V. V. Gvaramadze, (2022), MNRAS Volume 515, Issue 1, 1544–1556, *'Discovery of an optical cocoon tail behind the runaway HD 185806'* [ADS link]
- J. A. Toalá, **D. M. Bowman**, T. Van Reeth, H. Todt, K. Dsilva, T. Shenar, G. Koenigsberger, S. Estrada-Dorado, L. M. Oskinova, W.-R. Hamann, (2022), MNRAS, Volume 514, Issue 1, 2269–2277, *'Multiple variability time-scales of the early nitrogen-rich Wolf-Rayet star WR7'* [ADS link]
- J. Southworth, **D. M. Bowman**, (2022), MNRAS, Volume 513, Issue 3, pp. 3191-3209, *'High-mass pulsators in eclipsing binaries observed using TESS'* [ADS link]
- T. Van Reeth, J. Southworth, J. Van Beeck, **D. M. Bowman**, (2022), A&A, 659, A177, *'V456 Cyg: an eclipsing binary with tidally perturbed g-mode pulsations'* [ADS link]
- D. Lecoanet, **D. M. Bowman**, T. Van Reeth, (2022), MNRAS Letters, Volume 512, Issue 1, L16-L20, *'Asteroseismic inference of the near-core magnetic field strength in the main-sequence B star HD 43317'* [ADS link]
- **D. M. Bowman**, B. Vandenbussche, H. Sana, A. Tkachenko, G. Raskin, T. Delabie, B. Vandoren, P. Royer, S. Garcia, T. Van Reeth, and the CubeSpec collaboration, (2022), A&A, 658, A96, *'The CubeSpec space mission. I. Asteroseismology of massive stars from time-series optical spectroscopy: Science requirements and target list prioritisation'* [ADS link]
- K. Pavlovski, C. A. Hummel, A. Tkachenko, A. Derviçoğlu, C. Kayhan, R. T. Zavala, D. J. Hutter, C. Tycner, T. Şahin, J. Audenaert, R. Baeyens, J. Bodensteiner, **D. M. Bowman**, S. Gebruers, N. E. Jannsen, J. S. G. Mombarg, (2022), A&A, 658, A92, *'Dynamical parallax, physical parameters and evolutionary status of the components of the bright eclipsing binary α Draconis'* [ADS link]
- 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, (2022), MNRAS, Volume 509, Issue 3, 4246–4255, *'Five years of BRITE-Constellation photometry of the prototypical luminous blue variable P Cygni: constraining the stochastic low-frequency variability'* [ADS link]

2021: 2 first author and 12 co-author publications

- **D. M. Bowman** and M. Michielsen, (2021), A&A, 656, A158, *'Towards a systematic treatment of observational uncertainties in forward asteroseismic modelling of gravity-mode pulsators'* [ADS link]
- J. Van Beeck, **D. M. Bowman**, M. G. Pedersen, T. Van Reeth, T. Van Hoolst, C. Aerts, (2021), A&A, 655, A59, *'Detection of non-linear resonances among gravity modes of slowly pulsating B stars: Results from five iterative pre-whitening strategies'* [ADS link]
- 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, (2021), AJ, Volume 162, Issue 5, 209, *'TESS Data for*

Asteroseismology (T'DA) Stellar Variability Classification Pipeline: Set-Up and Application to the Kepler Q9 Data' [ADS link]

- 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'* [ADS link]
- 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'* [ADS link]
- **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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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 $M_{\odot}$'* [ADS link]
- 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, 1124–1137, *'Characterization of the variability in the O+B eclipsing binary HD 165246'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]

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'* [ADS link]

- **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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- **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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]

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'* [ADS link]
- 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'* [ADS link]

- 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'* [ADS link]
- 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'* [ADS link]
- **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'* [ADS link]
- **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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- **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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]

- 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'* [ADS link]
- 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'* [ADS link]
- **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'* [ADS link]

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'* [ADS link]
- 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)'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]
- **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'* [ADS link]
- 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'* [ADS link]
- **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'* [ADS link]
- 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'* [ADS link]
- 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'* [ADS link]

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'* [ADS link]
- 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'* [ADS link]

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'* [ADS link]
- 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'* [ADS link]
- **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'* [ADS link]

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'* [ADS link]

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

- H. Sana, M. Abdul-Masih, G. Banyard, J. Bodensteiner, **D. M. Bowman**, K. Dsilva, C. Eldridge, M. Fabry, A. J. Frost, C. Hawcroft, S. Janssens, L. Mahy, P. Marchant, N. Langer, T. Van Reeth, K. Sen, T. Shenar, *'The Nature of Unseen Companions in Massive Single-Line Spectroscopic Binaries'*, International Astronomical Union Proceedings Series for the IAUS361: Massive Stars Near and Far held 9–13 May 2022 in Ballyconnell, Ireland *(in press)* [ADS link]

- B. Vandenbussche, G. Raskin, P. Royer, **D. M. Bowman**, H. Sana, A. Tkachenko, J. Goris, J. Schuermans, D. Vandepitte, J. De Maeyer, F. Heylen, W. De Munter, M. Kempenaers, J. Lanting, B. Vandoren, T. Delabie, P. Saey, A. Verhoeven, V. Moreau, E. Renotte, P. Davidsen, K. Kaas, (2022), *'The CubeSpec mission'*, Proc. SPIE 12180, Space Telescopes and Instrumentation 2022: Optical, Infrared, and Millimeter Wave, 1218007, [ADS link]

- G. Raskin, J. de Maeyer, B. Vandenbussche, **D. M. Bowman**, J. Goris, M. Kempenaers, J. Pember, P. Royer, J. Schuermans, A. Tkachenko, D. Vandepitte, W. De Munter, J. Lanting, H. Sana, (2022), *'CubeSpec: optical payload design'*, Proc. SPIE 12180, Space Telescopes and Instrumentation 2022: Optical, Infrared, and Millimeter Wave, 121802Z, [ADS link]

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- **D. M. Bowman**, *'Massive star interiors revealed by gravity wave asteroseismology and high-resolution spectroscopy'*, International Astronomical Union Proceedings Series for the IAUS361: Massive Stars Near and Far held 9–13 May 2022 in Ballyconnell, Ireland *(in press)* [ADS link]

- **D. M. Bowman**, B. Vandenbussche, H. Sana, A. Tkachenko, G. Raskin, T. Delabie, B. Vandoren, P. Royer, S. Garcia, T. Van Reeth, *'The CubeSpec space mission: Asteroseismology of massive stars from time-series optical spectroscopy'*, International Astronomical Union Proceedings Series for the IAUS361: Massive Stars Near and Far held 9–13 May 2022 in Ballyconnell, Ireland *(in press)* [ADS link]

- V. Petit, **D. M. Bowman**, D. Cohen, A. David-Uraz, M. Drozdz, M. Dill, R. Fine, J. Janik, E. Jensen, Z. Mikulasek, J. Provencal, M. Shultz, R. Townsend, (2021), *'The magnetic braking of the B-type star sigma Ori E'*, MOBSTER-1 virtual conference: Stellar variability as a probe of magnetic fields in massive stars, Proceedings of the MOBSTER-1 virtual conference held 12-17 July 2020, id. 50 [ADS link]

- A. J. Frost, L. Mahy, H. Sana, J.-B. Le Bouquin, G. Wade, A. Merand, F. R. N. Schneider, T. Shenar, R. H. Barbá, J. Barron, **D. M. Bowman**, M. Fabry, A. Farhang, N. I. Morrell, M. Munoz, J. V. Smoker, (2021), *'A massive binary system with a single magnetic star'*, MOBSTER-1 virtual conference: Stellar variability as a probe of magnetic fields in massive stars, Proceedings of the MOBSTER-1 virtual conference held 12-17 July 2020, id. 39 [ADS link]

- S. Burssens, **D. M. Bowman**, S. Simón-Díaz, C. Aerts, (2021), *'Modelling OB stars with TESS: Construction of an asteroseismic sample'*, MOBSTER-1 virtual conference: Stellar variability as a probe of magnetic fields in massive stars, Proceedings of the MOBSTER-1 virtual conference held 12-17 July 2020, id. 38 [ADS link]

- 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, (2021), *'On the binary origin of Be stars and the nature of exotic Be binary systems'*, MOBSTER-1 virtual conference: Stellar variability as a probe of magnetic fields in massive stars, Proceedings of the MOBSTER-1 virtual conference held 12-17 July 2020, id. 24 [ADS link]

- **D. M. Bowman**, S. Burssens, S. Simón-Díaz, P. V. F. Edelmann, T. M. Rogers, L. Horst, F. K. Röpke, C. Aerts, (2021), *'Collective velocity broadening from gravity waves as a plausible mechanism for macroturbulence in massive stars'*, MOBSTER-1 virtual conference: Stellar variability as a probe of magnetic fields in massive stars, Proceedings of the MOBSTER-1 virtual conference held 12-17 July 2020, id. 15 [ADS link]

- J. Van Beeck, V. Prat, T. Van Reeth, S. Mathis, **D. M. Bowman**, C. Neiner, C. Aerts, (2021), *'Linking detected gravity modes to axisymmetric internal magnetic fields'*, MOBSTER-1 virtual conference: Stellar variability as a probe of magnetic fields in massive stars, Proceedings of the MOBSTER-1 virtual conference held 12-17 July 2020, id. 13 [ADS link]

- J. A. O. Barron, G. A. Wade, M. S. Munoz, A. David-Uraz, **D. M. Bowman**, S. Burssens, G. Holgado, V. Petit, S. Simón-Díaz, Mobster Collaboration, (2021), *'MOBSTER: Identifying Candidate Magnetic O Stars through Rotational Modulation of TESS Photometry'*, MOBSTER-1 virtual conference: Stellar variability as a probe of magnetic fields in massive stars, Proceedings of the MOBSTER-1 virtual conference held 12-17 July 2020, id. 9 [ADS link]

- S. Burssens, **D. M. Bowman**, M. Michielsen, S. Simón-Díaz, C. Aerts, (2021), *'Internal rotation and mixing in the massive star HD192575'*, Posters from the TESS Science Conference II (TSC2), held virtually 2-6 August, 2021, id. 75 [ADS link]

- **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. [ADS link]

- 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'*, OBA Stars: Variability and Magnetic Fields. On-line conference, held 26-30 April, 2021, id. 19 [ADS link]

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- 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, Volume 11. ISBN: 978-83-950430-9-3, pp. 226-235. [ADS link]

- A. David-Uraz, C. Neiner, J. Sikora, J. Barron, **D. M. Bowman**, P. Cerrahoğlu, D. H. Cohen, C. Erba, O. Kobzar, O. Kochukhov, V. Petit, M. E. Shultz, A. Ud-Doula, G. A. Wade, 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, Volume 11. ISBN: 978-83-950430-9-3, pp. 219-225. [ADS link]

- 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, Volume 11. ISBN: 978-83-950430-9-3, pp. 214-218. [ADS link]

- 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 [ADS link]

- A. David-Uraz, C. Neiner, J. Sikora, J. Barron, **D. M. Bowman**, P. Cerrahoglu, D. H. Cohen, C. Erba, V. Khalack, O. Kobzar, O. Kochukhov, H. Pablo, V. Petit, M. E. Shultz, A. Ud-Doula, G. A. Wade, 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

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