

Valeriu Predoi

Work

04/2017 – present, Research Software Engineer

- Institution: NCAS-CMS, University of Reading, Reading, UK
- Role specifics:
 - UKESM core developer
 - Core technical lead ESMValCore software package,
 - Core technical lead ESMValTool software package,
 - IPCC AR6 corresponding author
 - Met Office Climate Data Dissemination System developer
 - Projects: MAGIC (past), CRESCENDO and ISENES3 (current)

04/2014 – 11/2016, Senior Postdoctoral Research Associate

- Institution: School of Physics and Astronomy, Cardiff University, Cardiff, UK
- Role: scientific and computational research in gravitational waves

02/2013 – 02/2014, Postdoctoral Research Fellow

- Institution: Ryerson University, Toronto, Ontario, Canada
- Role: mathematical and computational modelling of viral infections

06/2012-02/2013, Postdoctoral Research Associate

- Institution: Cardiff University, Cardiff, UK
- Role: scientific and computational research in gravitational waves

Education

09/2008 – 09/2012, PhD, Cardiff University, Cardiff, UK

Research: gravitational waves astrophysics and data analysis.

03/2007 – 09/2008, MSc, Université de Montréal, Montréal, Canada

Research: Polarimetry and Submillimetre Astronomy with SCUBA-2/POL camera

09/2003 – 12/2006, BSc, Jacobs University, Bremen, Germany

Major: Geosciences and Astrophysics; Minor: Physics

Papers

- Righi, M., Andela, B., Eyring, V., Lauer, A., Predoi, V., Schlund, M., Vegas-Regidor, J., Bock, L., Brötz, B., de Mora, L., Diblen, F., Dreyer, L., Drost, N., Earnshaw, P., Hassler, B., Koldunov, N., Little, B., Loosveldt Tomas, S., and Zimmermann, K. "ESMValTool v2.0 - Technical overview" Geosci. Model Dev., 13, 1179-1199 doi: 10.5194/gmd-13-1179-2020, 2020
<https://gmd.copernicus.org/articles/13/1179/2020/>
- Eyring, V., Bock, L., Lauer, A., Righi, M., Schlund, M., Andela, B., Arnone, E., Bellprat, O., Brötz, B., Caron, L.-P., Carvalhais, N., Cionni, I., Cortesi, N., Crezee, B., Davin, E., Davini, P., Debeire, K., de Mora, L., Deser, C., Docquier, D., Earnshaw, P., Ehbrecht, C., Gier, B. K., Gonzalez-Reviriego, N., Goodman, P., Hagemann, S., Hardiman, S., Hassler, B., Hunter, A., Kadow, C., Kindermann, S., Koirala, S., Koldunov, N., Lejeune, Q., Lembo, V., Lovato, T., Lucarini, V., Massonnet, F., Müller, B., Pandde, A., Pérez-Zanón, N., Phillips, A., Predoi, V., Russell, J., Sellar, A., Serva, F., Stacke, T., Swaminathan, R., Torralba, V., Vegas-Regidor, J., von Hardenberg, J., Weigel, K., and Zimmermann, K. "Earth System Model Evaluation Tool (ESMValTool) v2.0 - an extended set of large-scale diagnostics for quasi-operational and comprehensive evaluation of Earth system models in CMIP" Geosci. Model Dev., 13, 3383-3438 doi: 10.5194/gmd-13-3383-2020, 2020
<https://gmd.copernicus.org/articles/13/3383/2020/>
- Weigel, K., Bock, L., Gier, B. K., Lauer, A., Righi, M., Schlund, M., Adeniyi, K., Andela, B., Arnone, E., Berg, P., Caron, L.-P., Cionni, I., Corti, S., Drost, N., Hunter, A., Lledó, L., Mohr, W. C., Paçal, A., Pérez-Zanón, N., Predoi, V., Sandstad, M., Sillmann, J., Sterl, A., Vegas-Regidor, J., von Hardenberg, J., and Eyring, V. "Earth System Model Evaluation Tool (ESMValTool) v2.0 - diagnostics for extreme events, regional and impact evaluation and analysis of Earth system models in CMIP" Geosci. Model Dev. Discuss. doi: 10.5194/gmd-2020-244 (in review)
<https://gmd.copernicus.org/preprints/gmd-2020-244/>
- Bock, Lauer, A., Schlund, M., Barreiro, M., Bellouin, N., Jones, C., Meehl, G. A., Predoi, V., Roberts, M. J., and Eyring, V. "Quantifying progress across different CMIP phases with the ESMValTool" J.

Geophys. Res., 125, e2019JD032321 doi: 10.1029/2019JD032321, 2020

<https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2019JD032321>

- B. P. Abbott et al. (LIGO Scientific Collaboration and Virgo Collaboration) "Search for gravitational waves associated with gamma-ray bursts during the First Advanced LIGO Observing Run and implications for the Origin of GRB 150906B" *The Astrophysical Journal*, Volume 841, Number 2, 2017 <https://iopscience.iop.org/article/10.3847/1538-4357/aa6c47>

- Sellar, Alistair; Jones, Colin G.; Mulcahy, Jane; Tang, Yongming; Yool, Andrew; Wiltshire, Andy; O'Connor, Fiona; Stringer, Marc; Hill, Richard; Palmieri, Julien; Woodward, Stephanie; de Mora, Lee; Kuhlbrodt, T.; Rumbold, Steven T.; Kelley, Douglas I.; Ellis, Rich; Johnson, Colin E.; Walton, Jeremy; Abraham, NL; Andrews, Martin B.; Andrews, Timothy; Archibald, A. T.; Berthou, Ségolène; Burke, Eleanor; Blockley, Ed; Carslaw, Ken; Dalvi, Mohit; Edwards, John; Folberth, Gerd A.; Gedney, Nicola; Griffiths, Paul; Harper, Anna B.; Hendry, Maggie A.; Hewitt, Alan J.; Johnson, Ben T.; Jones, Andy; Jones, Chris D.; Keeble, James; Liddicoat, Spencer; Morgenstern, Olaf; Parker, Rob J.; Predoi, Valeriu; Robertson, Eddy; Siahpaan, Antony; Smith, Robin S.; Smith, Robin; Woodhouse, Matthew T.; Zengast, Guang; Zerroukat, Mohamed "UKESM1: Description and Evaluation of the U.K. Earth System Model" *Journal Of Advances In Modeling Earth Systems*, 11 (12), 4513-4558 doi:10.1029/2019ms001739 2019

<https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2019MS001739>

- B.P. Abbott et al. (LIGO Scientific Collaboration and Virgo Collaboration) "Observation of Gravitational Waves from a Binary Black Hole Merger" *Phys. Rev. Lett.*, 116, 061102 Published 11 February 2016 <http://journals.aps.org/prl/abstract/10.1103/PhysRevLett.116.061102>

- A.R. Williamson, C. Bower, S. Fairhurst, I.W. Harry, E. Macdonald, D. Macleod, and V. Predoi "Improved methods for detecting gravitational waves associated with short gamma-ray bursts" *Phys. Rev. D*, 90, 122004, 2014

- J. Aasi et al., (for LIGO Scientific Collaboration and Virgo Collaboration, the IPN and NASA/Fermi Gamma-ray Telescopes collaborations) "Search for Gravitational Waves Associated with γ -ray Bursts Detected by the Interplanetary Network", *Phys. Rev. Lett.*, 113, 011102, 2014

- V. Predoi for LIGO Scientific Collaboration and Virgo Collaboration and K. Hurley, "Search for gravitational waves associated with the InterPlanetary Network short gamma ray bursts", *Journal of Physics: Conference Series*, Volume 363, Number 1, 2012

- V. Predoi et al., "Prospects for joint radio telescope and gravitational-wave searches for astrophysical transients", *Classical and Quantum Gravity*, Volume 27, Number 8, 2010

- B. Abbott et al. (LIGO Scientific Collaboration, Virgo Collaboration), "Search for gravitational-wave inspiral signals associated with short Gamma-Ray Bursts during LIGO's fifth and Virgo's first science run", *The Astrophysical Journal*, Volume 715, Number 2, 2010

- Briggs, M.S. et al. (LIGO Scientific Collaboration, Virgo Collaboration), "Search for gravitational waves associated with gamma-ray bursts during LIGO science run 6 and Virgo science runs 2 and 3", *The Astrophysical Journal*, Volume 760, Number 1, 2012

- Abadie, J. et. al. (LIGO Scientific Collaboration, Virgo Collaboration) "Search for Gravitational Waves from Low Mass Compact Binary Coalescence in LIGO's Sixth Science Run and Virgo's Science Runs 2 and 3" *Phys.Rev. D*, 85, 082002, 2012