

## Author index

- Akiyama, S. – 258  
Al Jassar, H. K. – 69  
Albanese, C. – 352  
Aldás, F. – 125  
Amory-Mazaudier, C. – 159  
Angryk, R. A. – 344  
Antolin, P. – 36  
Aquino, M. – 352  
Aroori, M. – 11  
Arridge, C. S. – 109
- Bain, H. – 263  
Bamford, R. – 219  
Banerjee, D. – 340  
Barinov, O. G. – 232  
Barinova, V. O. – 232  
Battarbee, M. – 268, 298  
Benkhaldoun, Z. – 151, 159, 280  
Berger, M. A. – 20  
Berrilli, F. – 304, 335, 348, 352  
Bezrukikh, V. V. – 121  
Bisoi, S. K. – 294  
Bobrovnikov, S. Yu. – 29, 232  
Bogomolov, A. V. – 29, 232  
Bogomolov, V. V. – 29  
Boschini, M. J. – 105, 276  
Bounhir, A. – 151, 159, 280  
Braga, C. R. – 69  
Brain, D. A. – 114  
Brun, A. S. – 183, 250  
Bučík, R. – 14
- Cafarella, L. – 135, 139  
Casolino, M. – 348  
Cesaroni, C. – 352  
Chang, H.-Y. – 167  
Charbonneau, P. – 250  
Chen, N.-H. – 14  
Cohen, C. M. S. – 263  
Corona-Romero, P. – 236  
Cremades, H. – 58  
Cristaldi, A. – 352
- Daassou, A. – 151, 280  
Dai, X. – 243  
Dal Lago, A. – 69  
Dalla, S. – 268, 298, 324  
Daou, A. G. – 142  
Dasso, S. – 128  
De Franceschi, G. – 352  
de Mendonca, R. R. S. – 69  
De Michelis, P. – 135
- Del Moro, D. – 304, 335, 348, 352  
Den, M. – 272, 284, 310, 314  
DeZeeuw, D. – 142  
Dhara, S. K. – 32  
Di Mauro, D. – 135, 139  
Di Rollo, S. – 352  
Dolenko, S. A. – 232  
Du, Z. – 243  
Duldig, M. – 69
- Echer, E. – 69  
El bouyahyaoui, K. – 151, 159, 280  
Elek, A. – 17  
Erdélyi, R. – 17, 201, 294  
Eremeev, V. E. – 232  
Evenson, P. – 69
- Fionnagáin, D. Ó. – 98  
Fisher, D. J. – 151  
Fleck, B. – 335  
Fleury, R. – 159  
Fludra, A. – 87  
Forte, R. – 304, 335, 348, 352  
Foullon, C. – 132  
Fournier, A. – 183  
Francia, P. – 139  
Fridman, V. M. – 321  
Futaana, Y. – 263
- Georgoulis, M. K. – 294  
Gervasi, M. – 105, 276  
Gibson, S. E. – 359  
Giovannelli, L. – 304, 335, 348  
Glocer, A. – 142  
González, L. X. – 236  
González-Esparza, J. A. – 236  
Gopalswamy, N. – 258  
Grandi, D. – 105, 276  
Griffin, D. J. – 288  
Gritsyk, P. A. – 90  
Gullikstad, M. J. – 219  
Guyader, E. – 352  
Gyenge, N. – 17, 201, 294
- Harding, B. – 151  
Hawkes, G. – 20  
He, H. – 7, 243  
Holappa, L. – 197  
Horbury, T. – 254  
Huang, X. – 243  
Hudson, H. S. – 49  
Humble, J. – 69

- Hung, C. P. – 183  
 Hutchinson, M. – 352  
  
 Imtiaz, N. – 162  
 Ishii, M. – 284, 310  
  
 Jackman, C. M. – 109  
 Jefferies, S. M. – 335  
 Jin, H. – 284  
 Jodogne, J. C. – 355  
 Jouve, L. – 183  
  
 Kaab, M. – 151, 159, 280  
 Kalden, O. – 352  
 Kalegaev, V. V. – 29, 232  
 Kato, C. – 69  
 Kauristi, K. – 219  
 Khabarova, O. V. – 75  
 Khalifa, M. – 151, 280  
 Kieokaew, R. – 132  
 Kim, J.-H. – 167  
 Kim, R.-S. – 14  
 Knyazeva, I. – 291  
 Kohutova, P. – 23, 36  
 Korsós, M. B. – 17, 294  
 Kotova, G. A. – 121  
 Kozai, M. – 69  
 Kromyda, G. – 3  
 Kubo, Y. – 272, 284, 310  
 Kubota, Y. – 284  
 Kusnetsov, N. V. – 232  
 Kuwabara, T. – 69  
 Kuznetsova, M. M. – 142  
  
 la Luz, V. D. – 236  
 La Vacca, G. – 105, 276  
 Lagheryeb, A. – 151, 280  
 Laitinen, T. – 268, 298  
 Lanabere, V. – 128  
 Landi, E. – 87, 359  
 Lavraud, B. – 132  
 Lazrek, M. – 151  
 le Roux, J. A. – 75  
 Lee, C. O. – 263  
 Lepidi, S. – 135, 139  
 Leske, R. A. – 263  
 Li, G. – 75  
 Li, Y. – 263  
 López, E. – 125  
 Luhmann, J. G. – 263  
  
 Makarenko, N. – 291  
 Makela, J. J. – 151  
 Malandraki, O. E. – 75, 301  
 Mann, I. – 219  
 Marchand, R. – 162  
 Marsh, M. S. – 268, 298  
  
 Marshall, A. – 142  
 Martens, P. C. – 344  
 Martucci, M. – 348  
 Marzocchetti, M. – 135, 139  
 Mays, M. L. – 263  
 McCrea, I. – 219  
 McIntosh, S. W. – 359  
 Mejía-Ambriz, J. – 236  
 Mergé, M. – 348  
 Messerotti, M. – 226  
 Mewaldt, R. A. – 263  
 Miller, D. – 26  
 Mirtoshev, Z. – 65  
 Mishra, W. – 65  
 Moen, J. – 219  
 Munakata, K. – 69  
 Munroe, M. – 94  
 Murphy, N. – 335  
 Mursula, K. – 82, 197  
 Myagkova, I. N. – 29, 232  
  
 Nakamizo, A. – 284  
 Napoletano, G. – 304, 348  
 Narici, L. – 348  
 Neukirch, T. – 36  
 Nguyen, M. D. – 232  
 Nikolić, L. – 307  
 Nishizuka, N. – 310  
 Núñez, M. – 301  
  
 Odstrcil, D. – 263  
 Ogawa, T. – 314  
 Oksavik, K. – 219  
 Owens, M. J. – 254  
  
 Panasyuk, M. I. – 29, 232  
 Pant, V. – 340  
 Patel, R. – 340  
 Pensotti, S. – 105, 276  
 Pershin, A. V. – 171  
 Petrov, V. L. – 29  
 Pietropalo, E. – 348  
 Pietropaolo, E. – 304, 335  
 Poedts, S. – 294  
 Ponyavin, D. I. – 208  
 Popova, E. – 211  
 Proctor, S. J. – 268  
 Pucacco, G. – 348  
  
 Rai Choudhuri, A. – 177  
 Rakhlin, A. V. – 171  
 Rancoita, P. G. – 105, 276  
 Rastaetter, L. – 142  
 Reddy, K. C. – 11  
 Reiff, P. H. – 142  
 Reyes-Santiago, P. J. – 301  
 Riley, P. – 254

- Rizzo, A. – 348  
 Rockenbach, M. – 69  
 Rodgers, W. – 335  
 Rodriguez, F. – 352  
 Romano, V. – 352  
 Ronchini, R. – 352  
 Rowlands, G. – 36  
 Rozza, D. – 105, 276  
 Ruderman, M. S. – 294  
 Russell, C. T. – 142, 191  
  
 Sabbah, I. – 69  
 Sapundjiev, D. – 355  
 Sarkar, R. – 32  
 Sazykin, S. Y. – 142  
 Scardigli, S. – 348  
 Schuch, N. J. – 69  
 Sergeeva, M. – 236  
 Sharma, M. M. – 69  
 Sheiner, O. A. – 171, 318, 321  
 Shepherd, S. J. – 211  
 Shinagawa, H. – 284  
 Shiota, D. – 284  
 Shiroky, V. R. – 232  
 Shishkova, S. S. – 29  
 Shugai, Y. S. – 232  
 Smirnova, A. S. – 318  
 Snegirev, S. S. – 318  
 Somov, B. V. – 90  
 Sparvoli, R. – 348  
 Spogli, L. – 352  
 Srivastava, N. – 32, 65  
 Stankov, S. M. – 355  
 Strugarek, A. – 250  
 Struminsky, A. – 43  
 Sugiura, K. – 310  
 Svertilov, S. I. – 29  
 Swalwell, B. – 268, 324  
  
 Tacconi, M. – 105, 276  
 Talagrand, O. – 183  
 Tanaka, T. – 272, 284, 314  
 Tao, C. – 284  
 Thompson, M. J. – 359  
 Thuburn, J. – 288  
 Tlatov, A. – 187, 362  
 Tlatova, K. A. – 187  
 Tokumaru, M. – 69  
 Tomczyk, S. – 359  
 Torre, S. D. – 105, 276  
  
 Tozzi, R. – 135  
 Tulunay, E. – 328  
 Tulunay, Y. – 328  
 Turunen, E. – 219  
  
 Urtiev, F. – 291  
 Usoskin, I. – 82  
  
 Väisänen, P. – 82  
 Vasil'eva, V. – 187  
 Veettil, S. V. – 352  
 Verhulst, T. G. W. – 355  
 Verigin, M. I. – 121  
 Verwichte, E. – 23, 36  
 Vidotto, A. A. – 98  
 Vilmer, N. – 250, 280  
 Vitale, V. – 365  
 Vlahos, L. – 3  
 Vlasova, N. A. – 232  
 Vokhmyanin, M. V. – 205, 208  
 Vybornov, F. I. – 171  
  
 Walsh, R. – 324  
 Wang, H. – 7, 243  
 Watari, S. – 272, 284  
 Watari, S.-i. – 310  
 Webb, G. M. – 75  
 Webster, J. M. – 142  
 Welling, D. T. – 142  
  
 Xie, H. – 258  
  
 Yamashita, K. – 314  
 Yamauchi, M. – 219  
 Yan, Y. – 7, 243, 294  
 Yashin, I. V. – 29  
 Yashiro, S. – 258  
 Yellaiah, G. – 11  
 Yokoyama, T. – 284  
 Yoshikawa, A. – 125  
 Yu, S. – 294  
 Yun, D. – 7  
  
 Zakari, M. – 183  
 Zank, G. P. – 75  
 Zhao, H. – 243  
 Zharkov, S. I. – 211  
 Zharkova, V. V. – 54, 211  
 Zhu, X. – 243  
 Zolotova, N. V. – 205, 208



Some illustrations of the parallel education program with public lecturers L. Green and S. Limaye, the Norman Lockyer archive (Old Library), public and conference participants attending the Tuesday lectures, G. Provan's planeterrella experiment (Monday school workshop) and magnet demonstrations (Tuesday public fun fair).

## PARALLEL EDUCATION PROGRAM

The recent IAU Symposium 335 on ‘Space Weather of the Heliosphere: Processes and Forecasts’ held at the University of Exeter, UK in July 17-21 2017, was the occasion to promote our field of astronomy and space weather science, by giving participants the opportunity to engage about space weather with local young people (students), teachers and the general public in an active 3-day parallel education/public outreach program.

The following events took place from Monday 17th to Wednesday 19th of July, reaching out to schools, teachers and the general public (~300 people).

- Monday of workshops and poster competition for schools (with Poster judging and Prize ceremony).
- Tuesday CPD session for teachers
- Space Weather: public lectures and fun fairs
  - Tuesday, Exeter: Two public lectures, followed by a ‘fun fair’ with some hands-on demos for children and adults to use.
  - Wednesday, Sidmouth: Demonstrations at the Norman Lockyer Observatory (NLO) followed by a public lecture, Kennaway House.

In addition were History of Science and Outreach Exhibitions that were specially arranged by the University Old Library & Bill Douglas Cinema Museum on the occasion of the IAU Symposium. These exhibitions were open to the general public for several weeks together (13-31 July), including the week of the conference.

I take this opportunity to thank all guest public lecturers, demonstrators, and judges from across the UK but also from abroad, who contributed to share their enthusiasm about space weather: C. Beggan, S. Bingham, L. Green, M. Kutzenova, D. Knipp, S. Limaye, H. Mason, K. Muglach, G. Provan, P. Reiff, S. Strawbridge, Y. Tulunay, E. Verwichte, M. Weber. This outreach program was facilitated by N.B. Crosby, A. Mills, M. Berger, D. Jackson and D. Strange from SOC/LOC, and an extensive number of Met Office and NLO staff associated to members of the LOC, as well as many Exeter staff across several departments and Colleges.

Financial support from the Royal Astronomical Society and the University of Exeter and donations from the DK publisher supported these activities and are gratefully acknowledged.

Post-conference materials including photo albums and education resources are posted on the website [www.exeter.ac.uk/iaus335](http://www.exeter.ac.uk/iaus335).

*Dr Claire Foullon, Chair of IAUS335 LOC & SOC  
Exeter, 20 November 2017*

## IAU Symposium No.335

17–21 July 2017

University of Exeter,  
United Kingdom

### Space Weather of the Heliosphere: Processes and Forecasts

The Sun is an active and variable star. Instabilities and non-stationary processes connected to the solar magnetic field and its evolutionary mechanisms modify its radiative and particle output on different timescales, from seconds to the evolutionary scale of the star. The Sun's activity affects interplanetary space and planetary environments, through space weather due to short-term activity and space climate on longer timescales. Space weather processes and forecasts are therefore important for both Earth and space within the heliosphere. The multi-disciplinary IAU Symposium 335 on 'Space Weather of the Heliosphere: Processes and Forecasts' gave a balanced overview of the general advances in space weather. It linked various aspects of research in solar, heliospheric and planetary physics, emphasizing cross-disciplinary developments. These companion proceedings, covering interdisciplinary topics and attracting a wide variety of contributors, serves as a timely reference to the international space weather community.

Proceedings of the International Astronomical Union

*Editor in Chief: Dr Piero Benvenuti*

This series contains the proceedings of major scientific meetings held by the International Astronomical Union. Each volume contains a series of articles on a topic of current interest in astronomy, giving a timely overview of research in the field. With contributions by leading scientists, these books are at a level suitable for research astronomers and graduate students.

International Astronomical Union



**MIX**  
Paper from  
responsible sources  
**FSC® C007785**

Proceedings of the International Astronomical Union

**Cambridge Core**

For further information about this journal please

go to the journal website at:

[cambridge.org/iau](http://cambridge.org/iau)

**CAMBRIDGE**  
UNIVERSITY PRESS

ISBN 978-1-107-19240-9



9 781107 192409