



HAL
open science

The Solar Orbiter Radio and Plasma Waves (RPW) instrument (Corrigendum)

M. Maksimovic, S. D. Bale, T. Chust, Y. Khotyaintsev, V. Krasnoselskikh, M. Kretzschmar, D. Plettemeier, H. O. Rucker, J. Souček, M. Steller, et al.

► To cite this version:

M. Maksimovic, S. D. Bale, T. Chust, Y. Khotyaintsev, V. Krasnoselskikh, et al.. The Solar Orbiter Radio and Plasma Waves (RPW) instrument (Corrigendum). *Astronomy and Astrophysics - A&A*, 2021, 654, pp.C2. 10.1051/0004-6361/201936214e . hal-03402816

HAL Id: hal-03402816


<https://hal.science/hal-03402816>

Submitted on 25 Oct 2021

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

The Solar Orbiter Radio and Plasma Waves (RPW) instrument (Corrigendum)

M. Maksimovic¹ , S. D. Bale^{2,3,4}, T. Chust⁵, Y. Khotyaintsev¹², V. Krasnoselskikh⁶, M. Kretzschmar^{6,7}, D. Plettemeier⁸, H. O. Rucker³⁵, J. Souček¹⁰, M. Steller⁹, Š. Štverák¹¹, P. Trávníček^{2,11}, A. Vaivads^{12,21}, S. Chaintreuil¹, M. Dekkali¹, O. Alexandrova¹, P.-A. Astier¹, G. Barbary¹, D. Bérard¹, X. Bonnin¹, K. Boughedada¹, B. Cecconi¹, F. Chapron¹, M. Chariet^{1,13}, C. Collin¹, Y. de Conchy¹, D. Dias¹, L. Guéguen¹, L. Lamy¹, V. Leray^{1,13}, S. Lion¹, L. R. Malac-Allain¹, L. Matteini¹, Q. N. Nguyen¹, F. Pantellini¹, J. Parisot¹, P. Plasson¹, S. Thijs¹, A. Vecchio^{1,34}, I. Fratter¹⁴, E. Bellouard¹⁴, E. Lorfèvre¹⁴, P. Danto¹⁴, S. Julien¹⁵, E. Guilhem¹⁶, C. Fiachetti¹⁴, J. Sanisidro¹⁴, C. Laffaye¹⁴, F. Gonzalez¹⁴, B. Pontet¹⁴, N. Quéruel¹⁴, G. Jannet⁶, P. Fergeau⁶, J.-Y. Brochot⁶, G. Cassam-Chenai⁶, T. Dudok de Wit^{6,7}, M. Timofeeva⁶, T. Vincent⁶, C. Agrapart⁶, G. T. Delory⁴, P. Turin⁴, A. Jeandet⁵, P. Leroy^{5,17}, J.-C. Pellion⁵, V. Bouzid⁵, B. Katra⁵, R. Piberne⁵, W. Recart^{5,13}, O. Santolík^{10,18}, I. Kolmašová^{10,18}, V. Krupař^{10,19,20}, O. Krupařová¹⁰, D. Píša¹⁰, L. Uhlíř¹⁰, R. Lán¹⁰, J. Baše¹⁰, L. Ahlèn¹², M. André¹², L. Bylander²¹, V. Cripps¹², C. Cully²², A. Eriksson¹², S.-E. Jansson¹², E. P. G. Johansson¹², T. Karlsson²¹, W. Puccio¹², J. Břínek¹¹, H. Ötacher⁹, M. Panchenko⁹, M. Berthomier⁵, K. Goetz²³, P. Hellinger¹¹, T. S. Horbury²⁴, K. Issautier¹, E. Kontar²⁵, S. Krucker^{26,2}, O. Le Contel⁵, P. Louarn²⁷, M. Martinović^{1,28,29}, C. J. Owen³⁰, A. Retino⁵, J. Rodríguez-Pacheco³¹, F. Sahrouri⁵, R. F. Wimmer-Schweingruber³², A. Zaslavsky¹, and I. Zouganelis³³

¹ LESIA, Observatoire de Paris, Université PSL, CNRS, Sorbonne Université, Univ. Paris Diderot, Sorbonne Paris Cité, 5 place Jules Janssen, 92195 Meudon, France

e-mail: milan.maksimovic@obspm.fr

² Space Sciences Laboratory, University of California, Berkeley, CA, USA

³ Physics Department, University of California, Berkeley, CA, USA

⁴ Stellar Scientific (now HELIOSPACE), 932 Parker St suite 2, Berkeley, CA 94710, USA

⁵ LPP, CNRS, Ecole Polytechnique, Sorbonne Université, Observatoire de Paris, Université Paris-Saclay, PSL Research University, Palaiseau, Paris, France

⁶ LPC2E, CNRS, 3A avenue de la Recherche Scientifique, Orléans, France

⁷ Université d'Orléans, Orléans, France

⁸ Technische Universität Dresden, Würzburger Str. 35, 01187 Dresden, Germany

⁹ Space Research Institute, Austrian Academy of Sciences, Graz, Austria

¹⁰ Institute of Atmospheric Physics, Czech Academy of Sciences, Prague 14131, Czech Republic

¹¹ Astronomical Institute, Czech Academy of Sciences, 14100 Prague, Czech Republic

¹² Swedish Institute of Space Physics (IRF), Uppsala, Sweden

¹³ Nexeya Conseil et Formation, 5 Rue Boudeville ZI de Thibaud, 31100 Toulouse, France

¹⁴ CNES, 18 Avenue Edouard Belin, 31400 Toulouse, France

¹⁵ Logiquat, Avenue Didier Daurat, 31700 Blagnac, France

¹⁶ Altran Sud Ouest 4, Avenue Didier Daurat, 31700 Blagnac, France

¹⁷ Université de Rennes 1 - 263 Avenue du Général Leclerc, 35042 Rennes, France

¹⁸ Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic

¹⁹ Universities Space Research Association, Columbia, MD, USA

²⁰ NASA Goddard Space Flight Center, Greenbelt, MD, USA

²¹ Department of Space and Plasma Physics, School of Electrical Engineering and Computer Science, Royal Institute of Technology, Stockholm, Sweden

²² Department of Physics and Astronomy, University of Calgary, Calgary, Alberta, Canada

²³ School of Physics and Astronomy, University of Minnesota, Minneapolis, MN, USA

²⁴ Department of Physics, Imperial College, SW7 2AZ London, UK

²⁵ School of Astronomy and Astrophysics, Glasgow University, Glasgow, UK

²⁶ University of Applied Sciences and Arts Northwestern Switzerland, 5210 Windisch, Switzerland

²⁷ IRAP, CNRS, Université de Toulouse, UPS, Toulouse, France

²⁸ Lunar and Planetary Laboratory, University of Arizona, Tucson, AZ 85719, USA

²⁹ Department of Astronomy, Faculty of Mathematics, University of Belgrade, Studentski trg 16, 11000 Belgrade, Serbia

³⁰ Mullard Space Science Laboratory, University College London, Holmbury St. Mary, Dorking, RH5 6NT, UK

³¹ Space Research Group, Universidad de Alcalá, Alcalá de Henares, Spain

³² Institute of Experimental and Applied Physics, Christian-Albrechts-University, Kiel, Germany

³³ ESA, ESAC, Madrid, Spain

³⁴ Radboud Radio Lab, Department of Astrophysics/IMAPP - Radboud University, PO Box 9010, 6500GL Nijmegen, The Netherlands

³⁵ Commission for Astronomy, Austrian Academy of Sciences, Graz, Austria

A&A, 642, A12 (2020), <https://doi.org/10.1051/0004-6361/201936214>

Key words. solar wind – instrumentation: miscellaneous – errata, addenda.

The erratum concerns Fig. 9 entitled “Antenna radio-electrical properties” for which some of the parameters are not correct. The new figure with new parameters is provided in Fig. 1 of this corrigendum.

		Monopole	Dipole
Antenna capacitance C_A (pF)	Physical length L (m)	6.5	7.857 for V1V2 and V1V3 6.99 for V2V3
	radius a (m)	0.015	0.015
	C_A (pF) for $f \ll c/2\pi L$	71.30	41.54 for V1V2 and V1V3 37.80 for V2V3
Cstray (pF)	antenna Cstray ANT 1 / PZ ANT 2 / PY ANT 3 / MY	76.3 ± 4.0 78.9 ± 3.0 76.2 ± 2.7	
	mean	77.1 ± 3.2	
	preamplifier Cstray	33.0	
	Stud Cstray	0.0	
	Cstray	109.5 ± 3.2	54.7 ± 1.6
$\Gamma = C_A / (C_A + C_S)$	Γ for $f \ll c/2\pi L$	0.394 ± 0.007	0.431 ± 0.007 for V1V2 and V1V3 0.408 ± 0.007 for V2V3
Leff (m)	min	3.83	5.48
	max	4.41	7.53
$\Gamma Leff$ (m) for $f \ll c/2\pi L$	min	1.48	2.20
	max	1.77	3.30

Fig. 1. Corrected Antenna radio-electrical properties.