Preflight Summary Report for: Gabrielse_etal_aps_bulletin_2023_A.pdf

Profile: Convert to PDF/A-1b (Processed pages 1 to 3)

Processed by Margaret Chen, Date: 8/20/25 12:25 AM

Fixups

- Prepare annotations for PDF/A-1 (3 objects)
- Convert to PDF/A-1b (2 objects)
- Force blend color space to sRGB (2 objects)
- Make document XMP Metadata compliant with PDF/A-1 (1 object)
- Flatten transparency (high resolution, no decalibration of ICCbased CMYK) (1 object)
- Remove document structure compression (1 object)
- Compress all uncompressed objects using lossless ZIP compression (1 object)
- Recompress LZW as ZIP (1 object)
- Adjust colors for PDF based ISO standards (1 object)
- Fix font encoding (CIDSet) (5 objects)
- Fix font encoding (CIDToGIDMap) (5 objects)

Results (Summary)

✓ **No problems found**

Document information

File name: "Gabrielse_etal_aps_bulletin_2023_A.pdf"
Path: "/Users/mwc20260/Downloads"
PDF version number: "1.4"
File size (KB): 75.3
Title: "Mesoscale Phenomena "
Author: "undefined"
Creator: "Chromium + Paged.js"
Producer: "Skia/PDF m80"
Created: "8/20/25 12:25 AM"
Modified: "8/20/25 12:25 AM"
Trapping: "Unknown"
Number of plates: 4
Names of plates: "(Cyan) (Magenta) (Yellow) (Black) "

Environment

Preflight, 18.6.0 (272)
Acrobat version: 25.001
Operating system: macOS 15.6.0

Bulletin of the AAS • Vol. 55, Issue 3 (Heliophysics 2024 Decadal Whitepapers)

Mesoscale Phenomena & their Contribution to the Global Response: A Focus on the Magnetotail Transition Region & Magnetosphere-Ionosphere Coupling

Christine Gabrielse[1] Matina Gkioulidou[2] Margaret Chen[1] Shin Ohtani[2] Yukitoshi Nishimura[3] Jiang Liu[4,5] Yue Deng[6] Joachim Birn[7] Amy Keesee[8] David Malaspina[9] Drew L. Turner[2] Andrei Runov[4] Tony Lui[2] Cheng Sheng[6] Mary Hudson[10,11] Bea Gallardo-Lacourt[12,13] Vassilis Angelopoulos[4] Larry R. Lyons[5] Chih-Ping Wang[5] Emma Spanswick[14] Eric Donovan[14] Stephen R. Kaeppler[15] Kareem Sorathia[2] Larry Kepko[12] Shasha Zou[16] Doğacan Ozturk[17] Jason Derr[18] Thomas Y. Chen[19]

[1]The Aerospace Corporation, El Segundo, CA, [2]John Hopkins Applied Physics Laboratory, [3]Electrical and Computer Engineering Department, Boston University, MA, [4]Earth, Planetary, and Space Sciences Department, UCLA, Los Angeles, CA, [5]Atmospheric and Ocean Sciences Department, UCLA, Los Angeles, CA, [6]University of Texas, Arlington, TX, [7]Space Science Institute, CO, [8]Department of Physics & Astronomy and Space Science Center, University of New Hampshire, Durham, NH, [9]Laboratory for Atmospheric and Space Physics, University of Colorado, CO, [10]Dartmouth College, [11]NCAR HAO, [12]NASA Goddard Space Flight Center, [13]The Catholic University of America, Department of Physics, Washington, DC, [14]Department of Physics and Astronomy, University of Calgary, Canada, [15]Clemson University, [16]University of Michigan, Ann Arbor, MI, [17]University of Alaska, Fairbanks, AK, [18]Rice University, [19]Columbia University

Published on: Jul 31, 2023

DOI: https://doi.org/10.3847/25c2cfeb.c1c8b81d

An important question that is being increasingly studied across subdisciplines of Heliophysics is “how do mesoscale phenomena contribute to the global response of the system?” This white paper focuses on this question within two specific but interlinked regions in Near-Earth space: the magnetotail’s transition region to the inner magnetosphere and the ionosphere.

Mesoscale Phenomena & their Contribution to the Global Response: A Focus on the Magnetotail Transition Region & Magnetosphere-Ionosphere Coupling.pdf