

BRADFORD J. WARGELIN

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Education

- 1993 Ph.D. Physics, University of California, Berkeley
1985 S.B. Physics, Massachusetts Institute of Technology

Professional History

- 2019– *Chandra* Uplink Support Interface (USINT) Coordinator, CXC/SAO
2008– Science team member for proposed *Constellation-X (Con-X)*, *Generation-X (Gen-X)*, *International X-ray Observatory (IXO)*, *X-Ray Surveyor/Lynx*, *Structure & Evolution of ExoJupiters (SEEJ)*, *Normal-incidence Extreme Ultraviolet Photometer (NExtUP)*; as Project Scientist), and *Line Emission Mapper (LEM)*
1998– *Chandra* X-Ray Center Calibration Scientist, Smithsonian Astrophysical Observatory
1993–98 *AXAF* Ground Calibration Scientist, Smithsonian Astrophysical Observatory

Recent Research Grants

- 2025 PI, “GJ 358’s Stellar Cycle: Small R_o , Short P_{cyc} , Big Questions,” *Chandra* AO27 (120 ks)
2025 PI, “Spinning on That Dizzy Edge: F-Star Activity Cycles,” *NICER* AO7 (168 ks)
2023 PI, “F-Star Stellar Cycles,” *Chandra* AO25 (150 ks)
2021 PI, “The X-Ray View of Stellar Cycles,” *XMM-Newton* AO20 (51 ks)
2021 PI, “Does Proxima Centauri Really Have a Stellar Cycle?,” *Swift* AO17 (36 ks)
2020 PI, “X-Ray Stellar Cycles at Low Rossby Number,” *Chandra* AO22 (90 ks/3 yr)
2020 PI, “Proxima Centauri’s Stellar Cycle,” *Swift* AO16 (42 ks)
2019 PI, “X-Ray Stellar Cycles at Low Rossby Number,” *Chandra* AO21 (105 ks)
2019 PI, “The X-Ray View of Stellar Cycles,” *XMM-Newton* AO18 (25 ks)
2019 PI, “Proxima Centauri’s Stellar Cycle,” *Swift* AO15 (49 ks)

General Fields of Interest

Stellar astrophysics: stellar coronae, cycles and winds, charge exchange, soft X-ray background
Laboratory UV/X-ray physics: high-resolution spectroscopy, charge exchange, optics and detectors

Selected Recent Publications

- “X-Ray, UV, and Optical Observations of Proxima Centauri’s Stellar Cycle,”
B.J. Wargelin, S.H. Saar, Z.A. Irving, et al., *Astrophys. J.* **977**, 144 (2024)
“Stellar Cycles in Fully Convective Stars and a New Interpretation of Dynamo Evolution,”
Z.A. Irving, S.H. Saar, B.J. Wargelin, & J.-D. do Nascimento, Jr., *Astrophys. J.* **949**, 51 (2023)
“Pointing *Chandra* Toward the Extreme Ultraviolet Fluxes of Very Low-Mass Stars,”
J.J. Drake, V.L. Kashayp, B.J. Wargelin, and S.J. Wolk, *Astrophys. J.* **893**, 137 (2020)
“Optical, UV, and X-Ray Evidence for a 7-Year Stellar Cycle in Proxima Centauri,”
B.J. Wargelin, S.H. Saar, G. Pojmański, et al., *MNRAS* **464**, 3281 (2017)
“Observation & Modeling of Geocoronal Charge Exchange X-Ray Emission During Solar Wind Gusts,”
B.J. Wargelin, M. Kornbleuth, P.L. Martin, and M. Juda, *Astrophys. J.* **796**, 28 (2014)