

Malcolm D. Shuster

Publications

Nuclear Physics

- C-1970a "Off-Shell Nucleon-Nucleon Amplitudes from Pion Production" (abstract), D. A. Zollman, M. K. Banerjee, C. A. Levinson, and M. D. Shuster, Paper DG3, *Annual Meeting of the American Physical Society*, Washington, D. C., *Bull. Am. Phys. Soc.*, Ser. II, Vol. 15, No. 4, April 27-29, 1970, p. 525.
- C-1970b "Pion Production in Nuclear Collisions" (abstract), M. D. Shuster, M. K. Banerjee, C. A. Levinson, and D. A. Zollman, Paper DG4, *Annual Meeting of the American Physical Society*, Washington, D. C., *Bull. Am. Phys. Soc.*, Ser. II, Vol. 15, No. 4, April 27-29, 1970, p. 525.
- D-1970c "Pion Production in Nuclear Collisions" (Dissertation), M. D. Shuster, University of Maryland, College Park, Maryland, September 1970, University Microfilms, Inc., Ann Arbor, Michigan, 1971, 106 pp.
- J-1971a "Non-Relativistic Hard-Pion Production and Current-Field Algebra," M. K. Banerjee, C. A. Levinson, M. D. Shuster, and D. A. Zollman, *Physical Review*, Vol. C3, No. 2, February 1971, pp. 509-524.
- C-1972a "Isotensor Muon Capture in Nuclei" (abstract), M. D. Shuster and M. Rho, Paper III.25, *Proceedings, European Conference on Nuclear Physics*, Aix-en-Provence, France, June 25-July 1, 1972, p. 143.
- J-1972b "Exotic Muon Capture in Nuclei and Lepton Conservation," M. D. Shuster and M. Rho, *Physics Letters*, Vol. 42B, No. 1, November 13, 1972, pp. 45-48.
- J-1973a "Anomalous Enhancements in Multiple-Pion Production with Deuterons," T. Risser and M. D. Shuster, *Physics Letters*, Vol. 43B, No. 1, January 8, 1973, pp. 68-72.
- C-1973b "On the Nature of the ABC Effect" (abstract), I. Bar-Nir, T. Risser, and M. D. Shuster*, *Proceedings, Fifth International Conference on High-Energy Physics and Nuclear Structure*, Uppsala, Sweden, June 18-22, 1973.
- J-1975a "The ABC Effect in the Reaction $NN \rightarrow d\pi\pi$," I. Bar-Nir, T. Risser, and M. D. Shuster, *Nuclear Physics*, Vol. B87, 1975, pp. 109-126.
- J-1976a "A Comment on the Interpretation of Anomalous Enhancements in the Reaction $p + d \rightarrow d + \text{Missing Mass}$," I. Bar-Nir and M. D. Shuster, *Nuclear Physics*, Vol. B103, 1976, pp. 103-108.
- J-1976b "Isotensor Electromagnetic Currents and Nuclear Isobar Masses," M. D. Shuster, *Physics Letters*, Vol. 61B, No. 3, March 29, 1976, pp. 231-233.
- J-1976c "Non-Relativistic Hard Pion Production and Current-Field Algebra II. Reactions with Composite Targets," M. K. Banerjee, C. A. Levinson, M. D. Shuster, and D. A. Zollman, *Physical Review*, Vol. C13, No. 3, June 1976, pp. 2444-2450.
- J-1977a "Multiple Pion Exchange in a Nonstatic Theory of Nucleon-Nucleon Scattering and Isobar Production," H. J. Weber, J. M. Eisenberg, and M. D. Shuster, *Nuclear Physics*, Vol. A278, 1977, pp. 491-505.

Photography

- M-1978a "How to Use Your Luna-Pro Light Meter as a Densitometer," Walt Seng and Malcolm Shuster, *Petersen's Photographic Magazine*, Vol. 6, No. 10, February 1978, pp. 29-30; reprinted in *Blueprint Series Vol. II, Petersen's How-To Photographic Library*, 1978.

This list includes: all journal articles, conference articles, chapters and sections of books, magazine articles, and my dissertation, independent of topic, purpose or quality. Errata are listed both separately and with the original journal publication. Conference articles printed in *Advances in the Astronomical Sciences* are listed as conference articles according to the date of the conference presentation. The order of items in this list reflects the date of presentation for conference articles and the official date of the journal issue for journal publications. Author lists are as they were in the publication. The presenter of a conference article, if not the first author, is marked with an asterisk. When the word "proceedings" is absent from a conference entry, this means that no collected proceedings, either bound or electronic, was produced.

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Engineering

- C-1977b “Analytic Investigation of the AEM-A/HCMM Attitude Control System Performance,” G. M. Lerner, W. Huang, and M. D. Shuster, Paper AAS-77-116, *AAS/AIAA Astrodynamics Specialists Conference*, Grand Teton National Park, Wyoming, September 7–9, 1977, 24 pp.
- C-1978b “Approximate Algorithms for Fast Optimal Attitude Computation,” Malcolm D. Shuster, Paper AIAA 78-1249, *Proceedings, AIAA Guidance and Control Conference*, Palo Alto, California, August 7–9, 1978, pp. 88–95.
- B-1978c “Spin-Plane Magnetic-Coil Maneuvers,” M. Grell and M. D. Shuster, Sec. 19.2 in J. R. Wertz (ed.), *Spacecraft Attitude Determination and Control*, Springer, Berlin and New York, ISBN 978-90-277-1204-2, 1978, pp. 642–649.
- C-1979a “Magnetometer Bias Determination and Attitude Determination for Near-Earth Spacecraft,” G. M. Lerner and M. D. Shuster*, Paper AIAA-79-1695, *Proceedings, AIAA Guidance and Control Conference*, Boulder, Colorado, August 6–8, 1979, pp. 1–10.
- J-1981a “Three-Axis Attitude Determination from Vector Observations,” M. D. Shuster and S. D. Oh, *Journal of Guidance and Control*, Vol. 4, No. 1, January–February 1981, pp. 70–77.
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- C-1981c “Efficient Algorithms for Spin-Axis Attitude Estimation,” M. D. Shuster, *Proceedings, Flight Mechanics/ Estimation Theory Symposium*, NASA Goddard Space Flight Center, Greenbelt, Maryland, October 27–28, 1981, 23 pp.
- J-1981d “Inflight Magnetometer Calibration and Attitude Determination for Near-Earth Spacecraft,” G. M. Lerner and M. D. Shuster, *Journal of Guidance and Control*, Vol. 4, No. 5, September–October 1981, pp. 518–522.
- C-1982a “Kalman Filtering for Spacecraft Attitude Estimation,” E. J. Lefferts, F. L. Markley* and M. D. Shuster, Paper AIAA-82-0070, *AIAA 20th Aerospace Sciences Meeting*, Orlando, Florida, January 11-14, 1982, 16 pp.
- J-1982b “Inflight Estimation of Spacecraft Attitude-Sensor Accuracy and Alignments,” M. D. Shuster, D. M. Chitre, and D. P. Niebur, *Journal of Guidance, Control and Dynamics*, Vol. 5, No. 4, July–August 1982, pp. 339–343.
- J-1982c “Kalman Filtering for Spacecraft Attitude Estimation” (survey paper), E. J. Lefferts, F. L. Markley, and M. D. Shuster, *Journal of Guidance, Control and Dynamics*, Vol. 5, No. 5, September–October 1982, pp. 417–429.
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- J-1983c “Использование фильтров Калмана для Оценивания Пространственной Ориентации КЛА,” И. Дж. Леффертс, Ф. Л. Маркли, М. Д. Шустер, *Аэрокосмическая Техника*, Том. 1, с. 135–149, Август 1983.
- J-1983d “A Comment on Fast Three-Axis Attitude Determination Using Vector Observations and Inverse Iteration” (Technical Note), Malcolm D. Shuster, *The Journal of the Astronautical Sciences*, Vol. 31, No. 4, October–December 1983, pp. 579–584.
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- C-1984b “Efficient Estimation of Initial-Condition Parameters for Partially Observable Initial Conditions,” M. D. Shuster and D. W. Porter, *Proceedings, 23rd IEEE Conference on Decision and Control*, Las Vegas, Nevada, December 12–14, 1984, pp. 1272–1275.
- C-1987a “Treatment of Satellite Errors in the Processing of Magnetic Survey Data” (abstract), Malcolm D. Shuster, *International Union of Geodesy and Geophysics, XIX General Assembly*, Vancouver, British Columbia, Canada, August 9–22, 1987.
- J-1988a “In Memoriam, Gerald J. Bierman,” R. S. Baheti, A. J. Laub, and M. D. Shuster, *IEEE Transactions on Automatic Control*, Vol. 33, No. 4, April 1988, p. 322.

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- C-1989e “Very Coarse Attitude Determination for the Thrusted Vector Mission,” M. D. Shuster, H. L. Fisher, and K. L. Musser, Paper AAS-89–393, *AS/AIAA Astrodynamics Specialists Conference*, Stowe, Vermont, August 7–10, 1989; Proceedings: *Advances in the Astronautical Sciences*, Vol. 71, 1990, pp. 237–243.
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- C-1990b “Attitude Sensor Alignment Calibration for the Solar Maximum Mission,” Daniel S. Pitone and Malcolm D. Shuster, *Proceedings, Flight Mechanics/Estimation Theory Symposium*, NASA Goddard Space Flight Center, Greenbelt, Maryland, May 22–24, 1990, pp. 21–39.
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- C-1990e “QUEST, a longa história de um algoritmo rápido” (invited plenary paper), Malcolm David Shuster, *First Brazilian Symposium on Aerospace Technology*, São José dos Campos (SP), Brazil, August 1990, 36 pp.
- C-1991a “Autonomous, All-Stellar Attitude Determination Experiment: Ground Test Results,” H. L. Fisher, T. E. Strikwerda, C. C. Kilgus, L. J. Frank, and M. D. Shuster, Paper AAS-91–025, *AAS Guidance and Control Conference*, Keystone, Colorado, February 2–6, 1991; Proceedings: *Advances in the Astronautical Sciences*, Vol. 74, 1991, pp. 69–84.
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