

CURRICULUM VITAE FOR EACH CO-DIRECTOR
(one from a NATO country and one from a Partner country)

SURNAME Wefel

FIRST NAME(S) John P.

Affiliation and official address:

Department of Physics and Astronomy, Louisiana State University, Baton Rouge, LA, 70803-4001 USA

Date and place of birth: 28 April 1944
Cleveland, Ohio, USA

Nationality: USA

Education (degrees, dates, universities)

B.S. Valparaiso University, Indiana, 1966, Physics and Mathematics
A.M. Washington University, St. Louis, 1968, Physics
Ph.D. Washington University, St. Louis, 1971, Physics (Astrophysics)

Career/Employment (employers, positions and dates)

Louisiana State University:

Professor: 1989-Present

Associate Professor: 1985-1989

Assistant Professor: 1982-1985

University of Chicago:

Senior Research Associate: 1977-1982

Robert R. McCormick Fellow: 1975-1977

U.S. Naval Research Laboratory:

Research Physicist: 1973-1975

NAS/NRC Resident Research Associate: 1971-1973

Specialization (*specify*)

- (i) **main field:** Particle Astrophysics; cosmic ray composition, energy spectra, propagation, modulation
- (ii) **other fields:** Solar/Heliosphere; Nuclear Fragmentation; Radiation effects; Nucleosynthesis; heavy ion interactions
- (iii) **current research interest:** Supernova acceleration of ultra-high energy particles in the region of the "knee", up to 10^{15} eV

Honours, Awards, Fellowships, Membership of Professional Societies:

Robert R. McCormick Fellow (75-77); Universities Space Research Association Council of Institutions; Statewide director: Louisiana Space Consortium, Louisiana NASA EPSCoR; Chair of National Council of Space Grant Directors; American Physical Society; American Geophysical Union; American Institute of Aeronautics and Astronautics; SIGMA XI/RESA; American Association of Physics Teachers; American Association for the Advancement of Science; American Astronomical Society

Publications (*list selected publications on page 2 of curriculum vitae*)

- **Number of papers in refereed journals:** 95
- **Number of communications to scientific meetings:** 190
- **Books:** 8 (6 are ASI's)

Recent selected publications (*additional pages should NOT be attached and reprints should NOT be enclosed*)

- Particle Astrophysics and Cosmology, eds. M.M. Shapiro, R. Silberberg and J.P. Wefel, NATO ASI Series C, Vol. 394 (Dordrecht, Netherlands, 1993, Kluwer Academic Publ.) 168 p.
- "The CRRES (SPACERAD) Heavy Ion Model of the Environment (CHIME) for Cosmic Ray and Solar Particle Effects on Electronic and Biological Systems in Space," D. L. Chenette et al., IEEE Trans. Nucl. Sci., 41, 2332 (1994).
- "Energetic Helium Particles Trapped in the Magnetosphere," J. Chen, T.G. Guzik, Y. Sang, J.P. Wefel, and J.F. Cooper, Geophys. Res. Letters 21, 1583 (1994).
- "Supernova Remnants and the Physics of Strong Shock Waves," D. C. Ellison et al., Publ. Astron. Soc. Pacific, 106, 780 (1994).
- Currents in High Energy Astrophysics, eds. M. M. Shapiro, R. Silberberg and J. P. Wefel, NATO ASI Series C, Vol. 458 (Dordrecht, Netherlands, 1995, Kluwer Academic Publ.), 336 p.
- "Fragmentation and Multifragmentation of 10.6A GeV Gold Nuclei," M.L. Cherry et al., The KLM Collaboration, Phys. Rev. C, 52, 2652 (1995).
- "The $^3\text{He}/^4\text{He}$ Ratios for Solar Energetic Particle Events During the Combined Release and Radiation Effects Satellite Mission," J. Chen, T. G. Guzik and J. P. Wefel, Astrophysical Journal, 442, 875 (1995).
- "High Multiplicity Lead-Lead Interactions at 158 GeV/c per Nucleon," P. Deines-Jones et al., The KLM Collaboration, Phys. Rev. C, 53, 3044 (1996).
- "Energetic Helium Isotopes Trapped in the Magnetosphere," J. Chen, T.G. Guzik, J.P. Wefel, K.R. Pyle, and J.F. Cooper, J. of Geophys. Res., 101, 24,787 (1996).
- "Relativistic Interaction of ^{22}Ne and ^{26}Mg in Hydrogen and the Cosmic-Ray Implications," The Transport Collaboration, Astrophysical Journal, 479, 504 (1997).
- "Interactions of Relativistic ^{36}Ar and ^{40}Ar Nuclei in Hydrogen: Isotopic Production Cross Sections," The Transport Collaboration, Phys. Rev. C, 56, 398 (1997).
- "Neutron production at 0° from the $^{40}\text{Ca}+\text{H}$ reaction at $E_{\text{lab}}=357\text{A}$ and 565A MeV," The Transport Collaboration, Phys. Rev. C, 56, 1057 (1997).
- "Systematics of Isotopic Production Cross Sections from Interactions of Relativistic ^{40}Ca in Hydrogen," The Transport Collaboration, Phys. Rev. C, 56, 1536 (1997).
- "Advanced Thin Ionization Calorimeter to Measure Ultrahigh Energy Cosmic Rays," E.-S. Seo et al., The ATIC Collaboration, Advances in Space Research, 19, (No. 5), 711 (1997).
- "JACEE Results on Very High Energy Interactions," The JACEE Collaboration, Nucl. Phys. B 52, 81 (1997).
- "Automated Track Recognition and Event Reconstruction in Nuclear Emulsion," P. Deines-Jones et al., The KLM Collaboration, Nucl. Instrum. Meth. in Physics Research A 390, 219 (1997).
- "Elemental Abundance of High Energy Cosmic Rays," Y. Takahashi et al., The JACEE Collaboration, Nucl. Phys. B, 60, p. 83 (1998).
- "Cosmic Ray Proton and Helium Spectra - Results from the JACEE Experiment," K. Asakimori et al., The JACEE Collaboration, Astrophysical Journal, 502, 278 (1998).
- "Towards the Millennium in Astrophysics: Problems and Prospects," eds. M.M. Shapiro, R. Silberberg and J.P. Wefel, (Singapore, 1998, World Scientific), 408 p.
- "Advanced Cosmic Ray Composition Experiment for Space Station: ISS Accommodation Study," J. P. Wefel and T. L. Wilson, CP458, Space Technology and Applications International Forum, ed. M.S. El-Genk (New York, 1999, AIP Press), p. 245 and NASA Technical Report, NASA TP-1999-209202 (June, 1999).
- "Search for Antihelium in Cosmic Rays," J. Alcaraz et al., The AMS Collaboration, Physics Letters B 461, 387 (1999).
- "Neutron Production in Coincidence with Fragments from the $^{40}\text{Ca} + \text{H}$ Reaction at $E_{\text{ab}} = 357\text{A}$ and 565A MeV," C. Tuvé et al., The TRANSPORT Collaboration, Phys. Rev. C 59, 233 (1999).
- New Vistas in Astrophysics eds. M.M. Shapiro, R. Silberberg, T. Stanev and J.P. Wefel (Singapore, 2000, World Scientific), 378 p.
- "CRRES Measurements of energetic Helium During the 1990-91 Solar Maximum," E.G. Clayton, T.G. Guzik, and J.P. Wefel, Solar Physics, 195, 175 (2000).
- "First Results from the ATIC Beam-Test at CERN," E.S. Seo et al., The ATIC Collaboration, Advances in Space Research, 27, 819 (2001).
- Astrophysical Sources of High Energy Particles and Radiation, eds. M.M. Shapiro, T. Stanev and J.P. Wefel, NATO Science Series II, Vol. 44, (Dordrecht, 2001, Kluwer), 379 p.
- "Transition Radiation Detectors and Cosmic Rays at the Knee," M.L. Cherry and J.P. Wefel, in Proc. Transition Radiation Detectors for the Third Millennium, eds. N. Giglietto and P. Spinelli, Frascati Physics Series, vol. XXV, (Frascati, 2002, INFN) p. 35.
- "To Higher Energy: Balloon and Satellite Investigation Around the Knee," John P. Wefel, J. Phys. G: Nucl. Part. Phys., 29, 821 (2003).
- "The ATIC Long Duration Balloon Project," T.G. Guzik, The ATIC Collaboration, Advances in Space Research, in press (2003).