STEPHEN C. TEGLER

CONTACT:
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PERSONAL INFORMATION:
Date of Birth: June 27, 1962
Place of Birth: Cohoes, New York
Married
Two Children

EDUCATION:

1989	PhD	Physics	Arizona State University, Tempe, Arizona
1987	MS	Space Physics	Rice University, Houston, Texas
1984	BS	Physics	State University of New York at Stony Brook

PROFESSIONAL EXPERIENCE:

2000-	Associate Professor, Physics and Astronomy, Northern Arizona University
1995-2000	Assistant Professor, Physics and Astronomy, Northern Arizona University
1991-1995	Faculty Fellow, Physics, University of Notre Dame
1989-1991	Postdoctoral Research Associate, Astronomy, University of Florida

RESEARCH INTERESTS:
Kuiper Belt Objects
Comets
Icy Grains Toward Protostars and T-Tauri Stars
Optical and Infrared Photometry and Spectroscopy
History of Astronomy

PROFESSIONAL SOCIETY MEMBERSHIPS:
American Astronomical Society
Division For Planetary Sciences

GRANTS:

2002-2005 **NASA Planetary Astronomy Program**, A Photometric Survey of Trans-Neptunian Objects, S. C. Tegler* and W. Romanishin ($149,000).

2002-2004 **National Science Foundation**, Research Experience For Undergraduates In Astronomy, Northern Arizona University Site, S. C. Tegler**, ($122,000).

2002-2004 **Space Telescope Science Institute**, Infrared Photometry of a Statistically Significant Sample of Kuiper Belt Objects, S. C. Tegler ($6,000).

2002 **Northern Arizona Intramural Grant Program**, Mapping An Uncharted Region of the Solar System, S. C. Tegler* ($5,000).

2001-2003 **National Geographic Society**, Mapping An Uncharted Region of the Solar System, S. C. Tegler* and W. Romanishin ($12,000).

2001-2003 **Space Telescope Science Institute**, Photometry of a Statistically Significant Sample of Kuiper Belt Objects, S. C. Tegler ($12,000).

1999-2002 **NASA Planetary Astronomy Program**, A Photometric Survey of Trans-Neptunian Objects, S. C. Tegler* and W. Romanishin ($126,000).

1998 **NASA Origins of Solar Systems Program**, A Photometric Survey of Trans-Neptunian Objects, S. C. Tegler* and W. Romanishin ($28,000).

1997 **Northern Arizona University Organized Research**, Laboratory Simulation of Chemistry in the Primitive Solar System, S. C. Tegler* ($6,000).

1996 **Northern Arizona University Organized Research**, Laboratory Simulation of Chemistry in the Primitive Solar System, S. C. Tegler* ($14,000).

1996-1998 **NASA Origins of Solar Systems Program**, An Infrared Spectroscopic Survey of Icy Grains In Comets and Circumstellar Environments of Young Stars, S. C. Tegler* and D. A. Weintraub ($90,000).

1994-1997 **NASA Origins of Solar Systems Program**, Research In Origins of Solar Systems at Northern Arizona University, B. L. Lutz and S. C. Tegler ($210,000).

1993-1995 **NASA Origins of Solar Systems Program**, Relative Abundance of Ices In Disks Around T Tauri Stars, S. C. Tegler*, D. A. Weintraub, T. W. Rettig, and H. Campins ($90,000).

1992 **NASA Airborne Astronomy Program**, Relative Abundance of Ices In Disks Around Pre Main Sequence Stars, S. C. Tegler*, D. A. Weintraub, and H. Campins ($30,000).

1992 **University of Notre Dame Jessie Jones Foundation**, The Primordial Composition of the Solar System, T. W. Rettig and S. C. Tegler ($12,000).

1992 **American Astronomical Society**, International Travel Grant, S. C. Tegler*($1,000).

* Indicates my status as Principal Investigator or co-Principal Investigator

** Indicates my status as Interim Principal Investigator of the NAU NSF REU Grant

TELESCOPE TIME AWARDED:

Keck I and II Telescopes*	10.0-m
Kitt Peak National Observatory Mayall Telescope*	4.0-m
United Kingdom Infrared Telescope*	3.8-m
Wisconsin Indiana Yale NOAO Telescope*	3.5-m
NASA Infrared Telescope Facility*	3.0-m
Hubble Space Telescope	2.4-m
University of Arizona Bok Telescope*	2.3-m
University of Arizona Kuiper Telescope*	1.6-m
Vatican Advanced Technology Telescope*	1.8-m
Cerro Tololo InterAmerican Observatory	1.5-m
Kuiper Airborne Observatory*	1.0-m

* Indicates my status as Principal Investigator or co-Principal Investigator

INVITED LECTURES:

University of Notre Dame, Dept of Physics, Notre Dame, IN, The Ragged Edge, (2002).

AAS Division For Planetary Sciences, Padua, Italy, The Kuiper Belt, (1999).

Lowell Observatory, Flagstaff, AZ, The Kuiper Belt, (1998).

PROFESSIONAL SERVICE:

Telescope Allocation Committee: Steward Observatory (University of Arizona).

Panel Member: NASA Planetary Astronomy, NSF Planetary Astronomy.

Manuscript Reviewer: Astronomical Journal, Astrophysical Journal, Icarus, and Nature.

NORTHERN ARIZONA UNIVERSITY SERVICE:

Astronomy Faculty Search Committee, Chair.

Planetary Science Faculty Search Committee, Chair.

Physics Department Peer Review Committee (FSC), Member.

College of Arts and Science Dean's Search Committee, Member.

PUBLIC OUTREACH:

Northern Arizona Elderhostel Program, Lecture on Comets.

Cromer Elementary School, Flagstaff, AZ, Science Fair Judge.

Cromer Elementary School, Flagstaff, AZ, Comet Demo.

Foresight Pre-School, Flagstaff, AZ, Comet Demo.

TEACHING EXPERIENCE:

Phy 441, Thermal and Statistical Physics. Thermodynamics, statistical mechanics, and quantum statistics. An elective for physics majors. Taught 4 times. Approximately 12 students per class.

Ast 301, Observational Astronomy. Spherical astronomy, astronomical optics, all-sky photometry, charge coupled device (CCD) imaging. Requirement for astronomy major. Taught 2 times. Approximately 15 students per class.

Ast 301L, Observational Astronomy Laboratory. Astronomical imaging with CCDs and data analysis with IRAF. Requirement for astronomy major. Taught 2 times. Approximately 15 students per class.

Ast 181, Introduction to Observational Astronomy. Constellation identification, celestial sphere, use of 10-in Meade telescopes. Liberal studies class. Taught 8 times. Approximately 24 students per class.

Ast 180, Introduction to Astronomy. Celestial sphere, Kepler's Laws, Solar System formation and evolution, stars and stellar evolution, galaxies, and cosmology. Liberal studies class. Taught 7 times. Approximately 120 students per class.

Phy 128, Physics II, University of Notre Dame. Thermodynamics, waves, electricity, and magnetism. Calculus based class for physics and engineering majors. Taught 2 times. Approximately 120 students

Phy 127, Physics I, University of Notre Dame. Classical mechanics. Calculus based class for physics and engineering majors. Taught 2 times. Approximately 120 students per class.

Ast 110, Introduction to Astronomy, University of Notre Dame. Celestial sphere, Kepler's Laws, Solar System formation and evolution, stars and stellar evolution, galaxies, and cosmology. Liberal studies class. Taught 2 times. Approximately 120 students per class.

PEER REVIEWED PUBLICATIONS FOR STEPHEN C. TEGLER

1. Slow Dancing In the Kuiper Belt: The Trans-Neptunian Binary 2000 CF105, W. Romanishin, S. C. Tegler, and K. Noll, ***Astronomical Journal***, submitted, July, 2003.

2. A Primordial Origin For the Colors of Kuiper Belt Objects, S. C. Tegler, W. Romanishin, and G. J. Consolmagno, ***Astrophysical Journal Letters***, submitted, July, 2003.

3. Resolution of the Kuiper Belt Object Color Controversy: Two Distinct Color Populations, S. C. Tegler and W. Romanishin, ***Icarus***, **161**, 181-191, (2003).

4. Detection of Two Binary Trans-Neptunian Objects, 1997 CQ29 and 2000 CF105, With the Hubble Space Telescope, K. S. Noll, D. C. Stephens, W. M Grundy, R. L. Millis, J. Spencer, M. Buie, S. C. Tegler, W. Romanishin, and D. P. Cruickshank, ***Astronomical Journal***, **124**, 3424-3429, (2002).

5. 1998 SM_{165}: A Large Kuiper Belt Object With An Irregular Shape, W. Romanishin, S. C. Tegler, T. W. Rettig, G. Consolmagno, and B. Botthof, ***Proceedings of the National Academy of Sciences***, **98**, 11863-11866, (2001).

6. Almost Planet X, S. C. Tegler and W. Romanishin, ***Nature***, **411**, 423, (2001).

7. Extremely Red Kuiper Belt Objects In Near Circular Orbits Beyond 40 AU, S. C. Tegler and W. Romanishin, ***Nature***, **407**, 979, (2000).

8. Rotation Rates of Kuiper Belt Objects From Their Lightcurves, W. Romanishin and S. C. Tegler, ***Nature***, **398**, 129, (1999).

9. Two Distinct Populations of Kuiper Belt Objects, S. C. Tegler and W. Romanishin, ***Nature***, **392**, 49, (1998).

10. X-Ray Photoelectron Spectroscopy and Mass Spectrometry Studies of X-Ray Processed Solid CO_2, D.M. Cornelison, T.R. Dillingham, S.C. Tegler, K. Galle, G.A. Miller, and B. L. Lutz, ***Astrophysical Journal***, **505**, 443, (1998).

11. Photometry of the Trans-Neptunian Object 1993 SC, S. C. Tegler, W. Romanishin, A. Stone, K. Tryka, U. Fink, and R. Fevig, ***Astronomical Journal***, **114**, 1230, (1997).

12. Visible and Near Infrared Photometry of the Centaur Object 1995 GO and 5145 Pholus, D. A. Weintraub, S. C. Tegler, and W. Romanishin, ***Icarus***, **128**, 456, (1997).

13. BVR Photometry of Centaur Objects 1995 GO, 1993 HA2, and 5145 Pholus, W. Romanishin, S. C. Tegler, J. Levine, and N. Butler, ***Astronomical Journal***, **113**, 1893, (1997).

14. The Extraordinary Colors of Trans-Neptunian Objects 1994 TB and 1993 SC, S. C. Tegler and W. Romanishin, ***Icarus***, **126**, 212, (1997).

15. CCD Imaging and Photometry of 46P/Wirtanen During October 1996, U. Fink, R. A. Fevig, S. C. Tegler, and W. Romanishin, ***Planetary and Space Sciences***, **45**, 1383, (1997).

16. Evidence for Chemical Processing of Pre-Cometary Icy Grains In Circumstellar Environments of Pre-Main-Sequence Stars, S. C. Tegler, D. A. Weintraub, T. W. Rettig, Y. J. Pendleton, D. C. B. Whittet, and C. A. Kulesa, ***Astrophysical Journal***, **439**, 279, (1995).

17. Infrared Spectrscopy and Imaging Polarimetry of the Disk Around the T Tauri Star RNO 91, D. A. Weintraub, S. C. Tegler, J. H. Kastner, and T. W. Rettig**,** ***Astrophysical Journal***, **423**, 674, (1994).

18. Detection of the 2165 cm^{-1} (4.619 micron) XCN Band In the Spectrum of L1551 IRS 5, S. C. Tegler, D. A. Weintraub, L. J. Allamandola, S. A. Sandford, T. W. Rettig, and H. Campins, ***Astrophysical Journal***, **411**, 260, (1993).

19. Comet Outbursts and Polymers of HCN, T. W. Rettig, S. C. Tegler, D. Pasto, and M.J. Mumma, ***Astrophysical Journal***, **398**, 293, (1992).

20. Simultaneous Visible and Near Infrared Spectrophotometry of Comet Austin, S. C. Tegler, H. Campins, S. Larson, M. Kleine, D. Kelly, and M. Rieke, ***Astrophysical Journal***, **396**, 711, (1992).

21. NH_3 and NH_2 in the Coma of Comet Brorsen-Metcalf, S. C. Tegler, L. F. Burke, S. Wyckoff, M. Womack, U. Fink, and M. DiSanti, ***Astrophysical Journal***, **384**, 292, (1992).

22. Ammonia Abundances in Four Comets, S. Wyckoff, S. C. Tegler, and L. Engel, ***Astrophysical Journal***, **368**, 279, (1991).

23. Nitrogen Abundance in Comet Halley, S. Wyckoff, S. C. Tegler, and L. Engel, ***Astrophysical Journal***, **367**, 641, (1991).

24. NH_2 Fluorescence Efficiencies and the NH_3 Abundance in Comet Halley, S. Tegler and S. Wyckoff, ***Astrophysical Journal***, **343**, 445 (1989).

25. Ammonia Abundances In Comets, S. Wyckoff, S. C. Tegler, and L. Engel, ***Advances In Space Research***, **9**, 169, (1989).

26. Abundances in Comet Halley at the Time of the Spacecraft Encounters, S. Wyckoff, S. Tegler, P. A. Wehinger, H. Spinrad, and M. J. S. Belton, ***Astrophysical Journal***, **325**, 927, (1988).

27. Spectrophotometry of Comets Giacobini-Zinner and Halley, S. C. Tegler and C. R. O'Dell, ***Astrophysical Journal***, **317**, 987, (1987).

28. High Precision Low Resolution Spectrophotometry of Comets Giacobini-Zinner and Halley, C. R. O'Dell and S. C. Tegler, ***20th ESLAB Symposium on the Exploration of Halley's Comet***, **SP-250** 1, 561, (1986).