

VITA of Dr. Elisabetta Pierazzo

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Citizenship: Italian (greencard holder)

Education:

- **Ph.D.** in Planetary Sciences at the University of Arizona, Tucson, AZ, Fall 1997.
Minor: Remote Sensing (Planetary Sciences)
Dissertation Title: The Chicxulub Impact Event and the Environmental Catastrophe at the End of the Cretaceous Period
Dissertation Advisor: Prof. H. Jay Melosh
- **Laurea** in Physics, Università di Padova, Padua, Italy, 1988.
Dissertation Title: Analisi di serie temporali nella fisica delle relazioni Terra-Sole: il metodo della Trasformata di Fourier Vettoriale (*Time series analyses of solar-terrestrial relationships: the Vector Fourier Transformation Method*)
Dissertation Advisor: Prof. Silvia M. Sartori
- Course on “*Hydrometeorology and Climatology*” of the Summer School in Environmental Dynamics, 12-23 June 1995, Venice, Italy.
- Erasmus Summer School on “*Impact cratering*”, 19-23 May 1995, Coldigioco (MC), Italy.
- Summer School on “*Remote Sensing of Processes Governing Energy and Water Cycles in the Climate System*”, 1-12 May 1995, Plön, Germany.
- Course on “*The General Circulation of the Oceans*” of the Summer School in Environmental Dynamics, 13-24 June 1994, Venice, Italy.
- Course on “*The General Circulation of the Oceans*” of the Summer School in Oceanography, 10-21 June 1991, Venice, Italy.

Professional Activities:

- **2006:** Member of the Scientific Committee of the 40th ESLAB Symposium on Impact Cratering in the Solar System (May 8-12, 2005, Noordwijk (NL))
- **2006:** Program Committee member of the Lunar & Planetary Science Conference.
- **2003-present:** Associate Editor, *Meteoritics and Planetary Sciences*
- **2003-present:** Member of the organizing committee for the 2007 Meteoritical Society Meeting, Tucson, Arizona
- **2004-2005:** Member of the Hazards and Resources subcommittee of the NASA Space Science Enterprise Strategic Plan 2006.
- **2004:** NASA Education & Public Outreach ROSS Panel 3 Review
- **2004, 2001, 2000:** NASA Planetary Geology and Geophysics Review Panel
- **2003:** NASA Astrobiology Institute CAN Cycle-3 Review Panel
- **2003:** Co-editor of MAPS Special Issue on the Proceedings of the *Bridging the Gap Between Modeling and Observations Workshop*, February 2004.
- **2003:** Co-convener LPI *Workshop: Impact Cratering: Bridging the Gap Between Modeling and Observations*, Houston, TX, Feb. 7-9 2003

- **Principal Investigator:** NASA Planetary Geology & Geophysics, Origins, Exobiology, Mars Fundamental Research and Education/Public Outreach Programs.

Honors and Awards:

- **2000:** University of Arizona *Foreign Travel Grant*.
- **1997:** *Gerard P. Kuiper Memorial Award*, Lunar & Planetary Lab. & Dept. of Planetary Sciences, University of Arizona
- **1994:** University of Arizona *Summer Research Support Program Award*.
- **1992/93, 1993/94, 1994/95, 1995/96, 1996/97, 1997/98.** University of Arizona *Graduate Registration Scholarship*
- **1991:** "Fondazione Ing. A. Gini" Fellowship to be spent abroad (United States).
- **1990:** Fellowship from the Italian *National Council of Research*, spent at the CNR-ISDGM in Venice, Italy.
- **1989:** "Fondazione Ing. A. Gini" Fellowship to be spent abroad (United States).

Invited Conference/Symposia Presentations:

- **5/2006:** Keynote speaker at the 40th ESLAB Symposium on Impact Cratering in the Solar System, Noordwijk, NL: *Numerical modeling of impact cratering*
- **7/2005:** Workshop on The Role of Volatiles and Atmospheres on Martian Impact Craters, Laurel, MD: *Impact cratering and material models: Subsurface volatiles on Mars*.
- **11/2004:** Guest lecturer at the Short Course on "Role of Water: The Geophysical and Geochemical Constraints on the Distribution, the State and Reaction of Water in the Earth", Sendai, Japan: *Environmental catastrophes associated with large impact events: The Cretaceous/Tertiary boundary impact event*.
- **11/2004:** 2nd International Workshop on Water Dynamics, Sendai, Japan: *Oceanic impacts and the environmental effects of atmospheric water injection*.
- **11/2004:** 24th Meeting of the Geologic Society of America, Denver, CO: *Hydrocode modeling of impact events*.
- **10/2004:** Second Conference on Early Mars: Geologic, Hydrologic, and Climatic Evolution and the Implications for Life, Jackson Hole, WY: *Impact cratering and the development of life on Mars*.
- **6/2004:** Guest lecturer at the 2004 Adler Planetarium Astro-Science Workshop on "Impacts in the Solar System".
- **1/17/2003:** Major Terrestrial Impacts: Modelling and Visualization. Open Colloquium of the American Museum of Natural History, NY: *Modeling the KT Cratering Event*.
- **11/2002:** Mesozoic-Cenozoic Bioevents: Possible links to impacts and other causes. International Symposium. Berlin, Germany: *Modeling the Cretaceous/Tertiary impact event: The onset of an environmental catastrophe*.
- **7/2002:** Bioastronomy 2002: Life Among the Stars, IAU Symposium 213, Great Barrier Reef, Australia: *Impacts and the evolution of planetary biospheres*.
- **2/2002:** Impacts and the Origin, Evolution, and Extinction of Life. A Rubey Colloquium, UCLA, Los Angeles (CA): *The Chicxulub impact event and the related global environmental effects*.
- **1/2001:** Task Group on Organic Environments in the Solar System (TGOESS), Space Studies Board, National Research Council, Tucson (AZ); *Impact delivery/synthesis of organic material*
- **5/2000:** 4th ESF-IMPACT: Meteorite Impacts in Precambrian Shields Workshop, Lappajärvi (Finland): *Thermal heating during formation of the Vredefort structure*
- **5/2000:** Asteroids, Meteorites, Impacts and their Consequences Meeting, Nördlingen (Germany); *Hydrocode Modeling of Impacts*

Recent Invited Colloquia:

- **2005:** UCLA, CA (2/05)
- **2004:** Tokyo University, Tokyo, Japan (11/04); Tohoku University, Sendai, Japan (11/04);

- **2003:** Massachusetts Institute of Technology (10/03); Lawrence Livermore Natl. Laboratory (5/03)
- **2001:** Southwest Research Institute (10/01); Planetary Science Institute (10/01); Rensselaer Polytechnical Institute (10/01), Univ. of Hawaii (7/01), Univ. of Chicago (6/01), Univ. of California Berkeley (2/01)
- **2000:** Univ. of California Santa Cruz (3/00), Univ. of Washington (5/00), Natural History Museum, Berlin (Germany, 5/00), Univ. of California Los Angeles (4/99), Caltech (4/99), SETI Institute (4/99), Univ. of California Santa Cruz (4/99)

Media Interactions:

- **2006:** Interview for scientific program on asteroids for History Channel (to be aired in Spring 2006).
- **2004:** Interview for scientific program named “Catalyst” for Australian ABC TV channel about the Chicxulub impact event and environmental and climatic changes associated with it.
- **2004:** Interview for the series “100 greatest discoveries” by Discovery Science, relative to the K/T boundary impact event and its effects on the environment and life (aired December 2004 on Discovery Science).
- **2001:** Interview for a WAMC show associated with a seminar at the Rensselaer Polytechnic Institute (Albany, NY) entitled “Impact Delivery of Organic Material to Earth, Mars and Europe”.
- **1999:** Interview for the Japanese Broadcasting Corporation NHK for a TV special on the Leonid Meteor Shower (Producer Atsushi Nishida) to discuss about work with Dr. Christopher Chyba on the origin of life.
- **1999:** Interview for UofA radio related to the Science paper entitled “Shock melting of the Canyon Diablo impactor: Constraints from Nickel-59 measurements and numerical modeling”.

Professional and Academic Experience:

2006: Member of PhD committee of Tamara Goldin, Geosciences, Univ. of Arizona.

8-12/2005. *Instructor* for NATS 102 “The Universe and Humanity: Origin and Destiny,” a Tier 1 Natural Science Course in the general education curriculum at the University of Arizona, Tucson, AZ.

9/2004-Present. *Adjunct Assistant Research Scientist*, Lunar & Planetary Laboratory, Univ. of Arizona, Tucson, AZ.

2/2002-Present. *Research Scientist*, Planetary Science Institute, Tucson, AZ.

Research topics: Study of how lithologies affect impact cratering through modeling of known and well-studied terrestrial impact structures; Study of the evolution of water content in asteroidal regoliths; Modeling impacts of asteroids and comets on Mars; Effects of the Chicxulub impact event on the global climate of the end-Cretaceous; Role of impacts in the origin/evolution of planetary biospheres; Modeling water delivery to planetary objects by large asteroid and comet impacts.

1/98-2/2002. *Research Associate*, Lunar and Planet. Lab., Univ. of Arizona, Tucson, AZ.

Research topics: Effects of the Chicxulub impact event on the global climate of the end-Cretaceous; Role of impacts in the origin of life in the Solar System; Modeling large impacts on the early Earth; Study of how lithologies affect impact cratering through modeling of known and well-studied terrestrial impact structures.

8/95-12/97 *Graduate Research Associate*, Lunar and Planet. Lab., Univ. of Arizona, Tucson, AZ. Thesis project: modeling of the Chicxulub impact event (end-Cretaceous, 65 Ma.), and its effects on the global climate of the end-Cretaceous. The impact modeling is carried out using the hydrocodes CSQ, under the supervision of Prof. H.J. Melosh, and CTH in collaboration with Dr. D. Crawford of the Sandia National Laboratories, Albuquerque, NM. Modeling of the Cretaceous climate and climate change are carried out using the NCAR general circulation model CCM3, under the supervision of Prof. R. Dickinson, at the Atmospheric Sciences Dept.

6-8/95 *Graduate Research Associate*, Atmospheric Sciences Department, University of Arizona, Tucson, AZ. Continuation of the research project on the paleoclimate of the end of the Cretaceous using NCAR’s general circulation model CCM, under the supervision of Prof. R. Dickinson.

- 8-12/94 and 1-5/95** *Teaching Assistant (Lab. Instructor)* of Prof. W. Hubbard for the course “Surveys of the Solar System”, Department of Planetary Sciences, University of Arizona, Tucson, AZ.
- 6-8/94** *Graduate Research Associate*, Atmospheric Sciences Department, University of Arizona, Tucson, AZ. Research focused on the paleoclimate of the end of the Cretaceous using the NCAR General Circulation Model CCM2 and published data on the end-Cretaceous environment, under the supervision of Prof. R. Dickinson.
- 8/93-5/94** *Graduate Research Associate*, Lunar and Planetary Laboratory, University of Arizona, Tucson, AZ. Research focused on (computer) simulations of impact cratering on planetary surfaces, under the supervision of Dr. A. M. Vickery. Studies of melt/vapor production in impact events are carried out using CSQ, a 2-D hydrocode developed at the Sandia National Laboratory.
- 7/91-7/93** *Graduate Research Associate*, Lunar and Planetary Lab., University of Arizona, Tucson, AZ. Research focused on image processing of telescopic data (development of software in Unix/C), and spectroscopy of the lunar surface, under the supervision of Prof. R. B. Singer.
- 8-12/92** *Teaching Assistant* of Prof. H. Larson for the course “Universe and Humanity: origin and destiny”, Department of Planetary Sciences, University of Arizona, Tucson, AZ.
- 1-6/91** *Graduate Research Associate*, Lunar and Planetary Lab., University of Arizona, Tucson, AZ. Research based on hydrocode simulations of impacts on planetary surfaces, with the supervision of Prof. H. J. Melosh. Development of the equation of state for H₂O.
- 8-12/90** *Teaching Assistant (Lab. Instructor)* for the course "Surveys of the Solar System", Department of Planetary Sciences, University of Arizona, Tucson, AZ.
- 1-8/90** *Researcher* at the ISDGM (Istituto per lo Studio della Dinamica delle Grandi Masse) of the National Research Council (CNR) of Italy, Venice, Italy. Research based on the analysis of temperature, salinity, and biochemical data in conjunction with the POEM (Physical Oceanography for the Eastern Mediterranean) international program (Phase I), under the supervision of Dr. A. Bergamasco. Implementation of the analysis technique based on Objective Analysis of sparse data, and development of the relative software (VMS/FORTRAN 77).
- 6-12/89** *Visiting Scientist* at the Lunar and Planetary Lab. of the University of Arizona, Tucson, AZ. Research focused on techniques for time sequence analysis based on the Fourier Transform, in collaboration with Prof. C. P. Sonett.
- 2-6/89** *Visiting scientist* at the Physics Dept. of the University of Pennsylvania, Philadelphia, PA. Research focused on the use of the Accelerator Mass Spectrometry technique in solar-terrestrial physics, in collaboration with the group headed by Prof. R. Middleton.
- 10/88-2/89** *Full-time teacher* of Math and Physics at the high school *Istituto Magistrale Statale "Nicoló Tommaseo"*, Venice, Italy.
- 6/86-2/88** Thesis project for the Physics degree at the University of Padua, Italy. Research project based on Solar-Terrestrial Relationships and the implementation of a technique for the analysis of time sequences based on the Fourier Transform; development of the relative software (VMS/FORTRAN 77).

Membership in Professional Organizations:

- American Geophysical Union
- The Meteoritical Society

List of Publications

Peer-Reviewed Journal Articles:

1. Richardson J., H.J. Melosh, N.A. Artemieva, E. Pierazzo: *Impact cratering theory and modeling for the Deep Impact mission: From mission planning to data analysis*. *Space Science Rev.*, 117(1-2), 241-267, 2005.
2. Pierazzo E., N.A. Artemieva, B.A. Ivanov: *Starting conditions for hydrothermal systems underneath martian craters: Hydrocode modeling*. *Large Meteorite Impacts* (T. Kenkmann, F. Hörz, A. Deutsch Eds.), *Geol. Soc. Am. Special Paper* 384, 443-457, 2005.
3. Turtle E.P., E. Pierazzo, R.U. Reimold, J.G. Spray, H.J. Melosh, G. Collins, J. Morgan, G. Osinski: *Impact structures: What does crater diameter mean?* *Large Meteorite Impacts* (T. Kenkmann, F. Hörz, A. Deutsch Eds.), *Geol. Soc. Am. Special Paper* 384, 1-24, 2005.
4. Pierazzo E., G.S. Collins: *A brief introduction to hydrocode modeling of impact cratering*, Henning D., Burchell M., and Claeys P. (eds.) *Impact Studies: Cratering in Marine Environments and on Ice* (Springer, New York), 323-340, 2003.
5. Turtle E.P., E. Pierazzo, D.P. O'Brien: *Numerical Modeling of Impact Heating and Cooling of the Vredefort Impact Structure*, *Meteoritics Planet. Sci.* 38, 293-303, 2003.
6. Pierazzo E., A.N. Hahmann, L.C. Sloan: *Chicxulub and Climate: Effects of Stratospheric Injections of Impact-Produced S-bearing Gases*, *Astrobiology* 3, 99-118, 2003.
7. Hood L.L., N.C. Richmond, E. Pierazzo, P. Rochette: *Distribution of Crustal Magnetic Fields on Mars: Shock Effects of Basin-Forming Impacts*, *Geophys. Res. Lett.* 30(6), 10.1029/2002GL016570, 2003.
8. Artemieva N.A., E. Pierazzo, Stöffler D.: *Numerical Modeling of Tektite Origin in Oblique Impacts. Implication to Ries-Moldavites strewn field*. *Bull. Czech Geol. Survey*, 77(4), 303-311, 2002.
9. Stöffler D., N.A. Artemieva, E. Pierazzo: *Modeling the Ries-Steinheim impact event and the formation of the moldavite strewn field*. *Meteoritics Planet. Sci.*, 37, 1893-1908, 2002.
10. Bland P.A., C.R. de Souza Filho, A.J.T. Jull, S.P. Kelley, R.M. Hough, N.A. Artemieva, E. Pierazzo, J. Coniglio, L. Pinotti, V. Evers, A.T. Kearsley: *A possible tektite strewn field in the Argentinian Pampa*. *Science* 296, 1109-1111, 2002.
11. Pierazzo E., C. F. Chyba: *Cometary Delivery of Biogenic Elements to Europa*, *Icarus* 157, 120-127, 2002.
12. Turtle E.P., E. Pierazzo: *Constraints on the Thickness of an European Ice Shell from Impact Crater Simulations*, *Science* 234, 1326-1328, 2001.
13. Pierazzo E., H.J. Melosh: *Understanding oblique impacts from experiments, observations, and modeling*, *Ann. Rev. Earth Planet. Sci.* 28, 141-167, 2000.
14. Pierazzo E., H. J. Melosh: *Melt production in oblique impacts*, *Icarus* 145, 252-261, 2000.
15. Pierazzo E., H. J. Melosh: *Hydrocode modeling of oblique impacts: The fate of the projectile*, *Meteoritics and Planet. Sci.* 35(1), 117-130, 2000.
16. Pierazzo E., C. F. Chyba: *Amino acid survival in large cometary impacts*, *Meteoritics and Planet. Sci.* 34(6), 909-918, 1999.
17. Schnabel C., E. Pierazzo, S. Xue, G.F. Herzog, J. Masarik, R.G. Cresswell, M.L. di Tada, K. Liu, and L.K. Fifield: *Shock melting of the Canyon Diablo impactor: Constraints from Nickel-59 measurements and numerical modeling*, *Science* 285, 85-88, 1999.
18. Pierazzo E., H. J. Melosh: *Hydrocode modeling of Chicxulub as an oblique impact event*, *EPSL* 165, 163-176, 1999.
19. Pierazzo E., D. A. Kring, H. J. Melosh: *Hydrocode simulation of the Chicxulub impact event and the production of climatically active gases*, *JGR* 103, 28607-28626, 1998.
20. E. P. Turtle and E. Pierazzo: *Constraints on the size of the Vredefort impact crater from numerical modeling*, *Meteoritics and Planetary Sci.* 33, 483-490, 1998.

21. Pierazzo E. A. M. Vickery, H. J. Melosh: *A re-evaluation of impact melt production*, *Icarus* 127, 408-423, 1997.
22. Bergamasco A., E. Pierazzo: *L'analisi oggettiva di dati oceanografici*, in "Calibrazione e validazione dei modelli numerici con i risultati sperimentali in oceanografia fisica", Supplement of "Annali della facoltà di Scienze Nautiche", I.U.N. (Napoli) 77-80, 1992.
23. Pierazzo E., S. M. Sartori, V. Vanzani, E. Celotto: *A systematic comparison of two different models of cosmogenic nuclide production in meteorites*; *Il Nuovo Cimento*, 13-C, 139-146, 1990.
24. Pierazzo E., S. M. Sartori: *Possible frequency modulation effects singled out by the Fourier Vector Amplitude in a $\Delta^{14}C$ yearly series of Georgian wines*, *Radiocarbon* 31(3), 725-739, 1989.

Other Professional Publications:

- I. Pierazzo E.: *Climatic effects associated with the Cretaceous-Tertiary Impact Event*. Invited for the Encyclopedia of Paleoclimatology and Ancient Environments (Kluwer Academic Publ. Earth Science Series). Invited. Submitted (Feb. 2004).
- II. Pierazzo E., C.F. Chyba: *Impact delivery of pre-biotic organic matter to Earth, Mars, and Europa*. Invited for "Comets and the Origin and Evolution of Life II", Thomas P.J., Chyba C.F., McKay C.P. (Eds.), (Springer, New York). Invited. In Press (2006).
- III. Herrick R., E. Pierazzo: *Meeting Report on "Impact Cratering: Bridging the gap between modeling and observations"*, *EOS* 84(31), 291, 2003.
- IV. Herrick R., E. Pierazzo: *Results of the Workshop on "Impact Cratering: Bridging the Gap Between Modeling and Observations"*, February 2003, LPI Contrib. No. 1162, 2003.
- V. Pierazzo E.: *Book review of "Impacts in Precambrian Shields"*, *EOS* 84(13), 122, 2003.
- VI. Botta O., D.P. Glavin, E. Pierazzo, P. Ehrenfreund, J.L. Bada: *Exogenous Material Delivery to Earth-like Planets and Moons*, *ESLAB Conf. Proc.*, ESA-SP 514, 173-180, 2002.
- VII. E. Pierazzo: *Organic Material from Comets. Investigating the delivery of Earth's prebiotic volatile inventory by cometary impacts*. *Astronomy Now* 16, 54-56, 2002.
- VIII. Pierazzo E., A. Bergamasco: *Objective Analysis of biochemical data from oceanographic POEM campaigns. Part II: Analysis*, Tech. Rep. 204, CNR-ISDGM, Venezia, Italy (1996) 98 pp.
- IX. Bergamasco A., E. Pierazzo: *Objective Analysis of biochemical data from oceanographic POEM campaigns (part I)*, Tech. Rep. 162, CNR-ISDGM, Venezia, Italy (1992).

Abstracts:

1. Pierazzo E.: *Numerical Modeling of Impact Cratering*, 40th ESLAB Symposium: First International Conference on Impact Cratering in the Solar System (2006) Abst. #298069.
2. Canup R.M., Pierazzo E.: *Retention of water during planet-scale collisions*, 37th LPSC (2006) Abst. #2146.
3. Ivanov B.A., Artemieva N.A., Pierazzo E.: *Impact cratering and material models: Subsurface volatiles on Mars*, workshop on The Role of Volatiles and Atmospheres on Martian Impact Craters (2005) Abst #3015.
4. Pierazzo E.: *Assessing atmospheric water injections from oceanic impacts*, 36th LPSC (2005) Abst #1987.
5. Pierazzo E. Artemieva N.A.: *Atmospheric fragmentation of the Canyon Diablo meteoroid*, 36th LPSC (2005) Abst #2325.
6. Rivkin A.S., E. Pierazzo: *Investigating the impact evolution of hydrated asteroids*, 36th LPSC (2005) Abst. #2014.
7. Chuang F., E. Pierazzo, G. Osinski: *The explorer's guide to impact craters*, 36th LPSC (2005) Abst #2390.
8. Pierazzo E., G. Osinski, F. Chuang: *The explorer's guide to impact craters*, 2004 AGU Fall Meeting, Abst. #4451, San Francisco, CA (Dec. 13-17, 2004).

9. Pierazzo E., N.A. Artemieva, B.A. Ivanov: *Characterizing starting conditions for hydrothermal systems underneath Martian craters*, 2004 AGU Fall Meeting, Abst. # 4368, San Francisco, CA (Dec. 13-17, 2004).
10. Pierazzo E.: *Oceanic impacts and the environmental effects of atmospheric water injection*, 2nd Int. Workshop on Water Dynamics, Sendai, Japan (Nov. 11-12, 2004).
11. Pierazzo E., Wünnemann K.: *Hydrocode modeling of impact events (Invited)*, GSA 2004 Denver Annual Meeting, Abst. #74479 (Nov. 7-10, 2004).
12. Artemieva, N.A., Ivanov B., Pierazzo E.: *Modeling impact processes on Mars (abstract)*, International Mars Conference, Ischia Island, Italy (Sept. 19-23, 2004).
13. Pierazzo E., N.A. Artemieva, B.A. Ivanov: *Starting conditions for hydrothermal systems underneath Martian craters: Hydrocode modeling*, 35th LPSC (2004) Abst. #1352.
14. Turtle E.P., E. Pierazzo, G.S. Collins, G.R. Osinski, H.J. Melosh, J.V. Morgan, U.W. Reimold, J.G. Spray: *Impact structures: What does crater diameter mean?* 35th LPSC (2004) Abst #1772.
15. Ivanov B.A., N.A. Artemieva, E. Pierazzo: *Popigai impact structure modeling: Morphology and worldwide ejecta*, 35th LPSC (2004), Abst. #1240.
16. Pierazzo E., N.A. Artemieva, B.A. Ivanov: *Starting conditions for hydrothermal systems underneath Martian craters: 3D hydrocode modeling*, 3rd International Conference on Large Meteorite Impacts (2003) Abst. #4102.
17. Pierazzo E., C.F. Chyba: *Impact delivery of organics to Mars: Oblique Impacts*, 34th LPSC (2003) Abst. #1645.
18. Rivkin A.S., T. Hiroi, F. Hörz, M. Cintala, E. Pierazzo: *Spectroscopy of Impacted Serpentine: Implications for Asteroid Surfaces*, 34th LPSC (2003) Abst. #1716.
19. Hood L.L., N.C. Richmond, E. Pierazzo, P. Rochette: *Distribution of crustal magnetic fields on Mars: Shock effects of basin-forming impacts*, 34th LPSC (2003) Abst. #1704.
20. Artemieva N.A., E. Pierazzo: *Oblique Impact and Its Ejecta – Numerical Modeling*, Impact Cratering: Bridging the Gap between modeling and observations (2003) Abst. #8036, Houston, TX.
21. Turtle E.P., E. Pierazzo, D.P. O'Brien: *Impact heating During Formation of the Vredefort Impact Structure*, ESF-IMPACT 8: Impact Tectonism (2002) Mora, Sweden.
22. Pierazzo E., A.N. Hahmann: *Chicxulub and Climate: Investigating the Climate Sensitivity to Stratospheric Injections of impact-generated S-bearing Gases*, 33rd LPSC (2002) Abst. #1269.
23. Stöffler D., N.A. Artemieva, E. Pierazzo: *Modeling the Ries-Steinheim impact event and the formation of the moldavite strewn field*, 33rd LPSC (2002) Abst. #1871.
24. Canup R.M., E. Asphaug, E. Pierazzo, H.J. Melosh: *Simulations of Moon-forming impacts*, 33rd LPSC (2002) Abst. #1641.
25. Pierazzo E., A.N. Hahmann: *Investigating the Climate Sensitivity of Stratospheric Injections of Large Amounts of S-bearing Gases*, AGU Fall Meeting 2001 (2001) Abst. #6301.
26. Bland P.A., C.R. de Souza Filho, R.M. Hough, E. Pierazzo, J. Coniglio, L. Pinotti, A.J.T. Jull, V. Evers: *The Rio Cuarto Crater Field Re-visited: Remote Sensing Imagery Analysis and New Field Observations*, 64th Meteoritical Society Meeting (10-14 Sept. 2001) Abst. #5319, Rome, Italy.
27. Stöffler D., A.N. Artemieva, E. Pierazzo, B.A. Ivanov: *Ries Crater, Germany: Geology and Numerical Modeling of Impact Cratering*, 64th Meteoritical Society Meeting (10-14 Sept. 2001) Abst. # 5180, Rome, Italy.
28. Pierazzo E., C.F. Chyba: *Impact Delivery of Biogenic Elements to Europa*, Jupiter: Planet, Satellites & Magnetosphere Conference (25-30 June 2001) Boulder, CO.
29. Pierazzo E., N. Artemieva, J.N. Spitale: *The Ries impact event: A tale of two hydrocodes*, ESF-IMPACT 5: Catastrophic Events and Mass Extinctions: Impacts and Beyond (2001) Granada, Spain.
30. Pierazzo E.: *Climate forcing from the stratospheric injection of impact-produced sulfur*, 32nd LPSC (2001) Abst. #1196, Houston, TX.

31. Pierazzo E., J.N. Spitale, D.A. Kring: *Hydrocode modeling of the Ries impact event*, 32nd LPSC (2001) Abst. #2106, Houston, TX.
32. Turtle E.P., E. Pierazzo: *Melt production during the formation of impact craters on Europa*, 32nd LPSC (2001) Abst. #1933, Houston, TX.
33. Turtle E.P., E. Pierazzo: *Vapor and melt production during the formation of impact craters on Europa*, AGU Fall Meeting 2000 (2000) Abst. #21062.
34. Pierazzo E.: *Chicxulub and climate: assessing the climate forcing of the sulfate aerosols*, IMPACT 2000: Catastrophic Events and Mass Extinctions: Impacts and Beyond (2000) Abst. #3077, Vienna, Austria.
35. Turtle E.P., E. Pierazzo: *Impact heating during formation of the Vredefort structure*, IMPACT 2000: Catastrophic Events and Mass Extinctions: Impacts and Beyond (2000) Abst. #3147, Vienna, Austria.
36. Pierazzo E.: *Hydrocode Modeling of Impact Events, Asteroids, Meteorites, Impacts and their Consequences*. AMICO 2000 Meeting (2000) p. 42-43, Nördlingen im Ries, Germany.
37. Turtle E.P., Pierazzo E., *Thermal heating during formation of the Vredefort structure*, 4th ESF-IMPACT Workshop: Meteorite Impacts in Precambrian Shields (2000) p. 19, Lappajärvi, Finland.
38. Pierazzo E., C.F. Chyba: *Impact Delivery of Organics to Earth, Mars, and Europa*, 1st Annual Astrobiology Sci. Conf. (2000) p. 31, NASA-Ames, Moffet Field, CA.
39. Pierazzo E., C.F. Chyba: *Impact Delivery of Organics to Europa [CD-ROM]*, 31st LPSC (2000), Abst. #1656, Houston, TX.
40. Alpert A., E. Pierazzo: *Venusian Impact Melt Production [CD-ROM]*, 31st LPSC (2000), Abst. #1486, Houston, TX.
41. Pierazzo E., C.F. Chyba: *Impact Delivery of Organics to Mars*, Bull. A.A.S. 31(4), 1183, 1999. 31st Meeting of the Division for Planet. Sci., AAS (1999), Padua, Italy.
42. Pierazzo E., H.J. Melosh: *Melt production in oblique impact events [CD-ROM]*, 30th LPSC (1999), Abst. #1223, Houston, TX.
43. Pierazzo E.: *Projectile melting in impact events: Shape effects [CD-ROM]*, 30th LPSC (1999), Abst. #1677, Houston, TX.
44. Pierazzo E., C. Schnabel, G.F. Herzog, J. Masarik, R.G. Cresswell, M.L. di Tada, K. Liu, and L.K. Fifield: *Constraints on the formation of Canyon Diablo spheroids from numerical modeling and Nickel-59 measurements [CD-ROM]*, 30th LPSC (1999), Abst. #1267, Houston, TX.
45. Pierazzo E., C.F. Chyba, *Amino acid survivability in large impacts*, in Impacts and the Early Earth Workshop, Cambridge, UK (December 1998)
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