

JENNIFER A. GRIER

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QUALIFICATIONS

Expert technical writer and editor with experience producing proposals, manuals, progress reports, handbooks, newsletters, articles, reviews, and scientific research papers.

Talented manager able to supervise project development, and coordinate special events such as fundraisers, conferences, and field trips.

Skilled desktop publisher utilizing graphs, plots, figures, illustrations, schematics and text to produce camera-ready copy and publication-quality formatting.

Superb public speaker and instructor with experience presenting at conferences in Berlin, Versailles, Padua, Houston, Denver, Flagstaff, Tucson, Washington D.C., and Madison WI. Instructional background includes teaching in formal classrooms, conducting workshops, and mentoring students.

EXPERIENCE

Research Associate

1999-Present

Planetary Science Institute and Lunar and Planetary Laboratory, Tucson, Arizona

Researched crater formation on Mars and the Moon. Managed Mars research group in absence of supervisor. Peer-reviewed proposals, including assessment of scientific merit, technical feasibility, and justification of proposed funds. Initiated new program to test the hypothesis of very young volcanic terrains on Mars by detailed counting of geologic units. Created plan to investigate the breakup of ejecta from craters on rocky surfaces, starting with Mars as a case study.

Achievements:

NASA Planetary Geology and Geophysics Program

- Principal Investigator and primary author of a three-year, \$127,943 proposal to study the formation of secondary swarms, crater clusters, and patterned crater ejecta on Mars, the Moon, Earth, and Venus.
- Co-Investigator and assisting author of a \$218,199 three-year proposal and progress report entitled "Impact Cratering Rates During the Past Billion Years."

NASA Mars Data Analysis Program

- Principal Investigator and primary author of a \$251,851 proposal to study the ages of volcanoes on Mars.
- Co-Investigator and assisting author of progress report for a three year, \$265,882 proposal to study Martian channel formation, young lava flows, impactor rates, and crater morphologies.

NASA - Education and Public Outreach Program

- Principal Investigator and primary author of \$27,951 proposal to produce a series of math/science teaching modules in conjunction with a math teacher and Tucson area schools.

Research/Outreach

- Managed production of ten instructional packets on Martian sample return sites for The Planetary Society. Packets included explanatory text, detailed images of Martian surface, and a glossary (in preparation).
- First author or co-author of three peer-reviewed research papers and nine conference abstracts.
- Primary author and researcher of a book chapter entitled "The Lunar Record of Recent Impact Cratering" for the American Geophysical Union special publication "Accretion of Extraterrestrial Matter Throughout Earth's History" (in preparation).

Graduate Research Associate

1997-1999

Planetary Image Research Laboratory, University of Arizona, Tucson, Arizona

Collected, digitized and reduced lunar data from the Clementine spacecraft. Utilized these data to determine approximate chronology of lunar craters and the flux of recent impactors into Earth/Moon space. Conducted surveys of Apollo images versus Clementine images of the Moon to determine possible changes in the extreme recent flux of asteroids and comets.

Achievements:

- Sole author of 230 page technical research dissertation entitled "Determining the Ages of Impact Events: Multidisciplinary Studies Using Remote Sensing and Sample Analysis Techniques."
- Primary author of ~\$9,000 proposal to the Head of the Planetary Sciences Department, University of Arizona to obtain funds for an annual graduate student run conference of approximately 80 attendees. Key committee member (of three) for the first two years of the conference.
- First author or co-author of three peer-reviewed research papers and seven conference abstracts.

Graduate Research Assistant

1992-1997

Noble Gas Mass Spectrometry/Radiometric Dating, University of Arizona, Tucson, AZ

Conducted vacuum gas extraction procedures on meteorite samples. Carried out electron microprobe and petroscopic microscope analyses of lunar meteorites. Assisted with target identification and extraction of microcore samples (less than 350 microns in size) from meteorites. Pioneered new procedures and designed tools for handling, preparing, processing and irradiating these cores.

Achievements:

- Co-author of five peer-reviewed research papers and first or co-author of eleven conference abstracts.
- Sole author of research proposals to the NASA Graduate Student Researchers Program. Total yearly budgets proposed: \$22,000.
- Primary author of ~ \$11,000 proposal to Head of the Planetary Sciences Department, University of Arizona to obtain funds for a graduate research field trip of 25 students to Yellowstone National Park. Compiled and edited the research abstract volume and field guide handbook for the trip.

Support Specialist

1991-1992

EMA (Excellence in Managed Automation), Tucson, Arizona

Edited and illustrated technical documents. Collated, published and bound several proposals, varying from 50-600 pages, used to bid for contracts for long term work from the Contra Costa Water District, the Colorado River Commission, the Greater Vancouver Regional District and other organizations.

Achievements:

- Initiated and published monthly newsletter for the software division of the Southwest Region Office.
- Wrote the Tucson EMA Branch column for EMA Today, the monthly company-wide newsletter.
- Wrote review of software for publication in the Journal of the Tucson Computer Society.
- Composed and assembled 30+ page manual detailing support specialist responsibilities

EDUCATION

Ph.D. Planetary Sciences, University of Arizona, 1999

B.S. Astronomy, University of Arizona, 1990