Last updated: 18-Jul-16

Name of the Faculty Member:
Prof. Sandeep Sahijpal

Designation:
Professor (Physics)

Contact details:
Department of Physics,
Panjab University, Sector 14, Chandigarh,
India 160014
sandeep@pu.ac.in
Phone: +91-172-2534469 (O) 2724039(R)
Fax: +91-172-2783336
Mobile: + 91-9815611039

Area of Specialization:
Astrophysics and Planetary Sciences

Award/ Honours/ Fellowship etc.:
1. National Scholarship by Government of India for 1990-91.
2. Silver medal for standing first in B. Sc. III (Hons. School) Physics by University.
3. Research scholarship for Ph.D. from Physical Research Laboratory, Ahmedabad.
4. Post-Doctoral fellowship from Physical Research Laboratory, Ahmedabad.
5. Post-Doctoral fellowship from University of California, Los Angeles.

Highlight of Research work:
• ***Astrophysics:*** The origin & evolution of the Milky-way galaxy; the stellar nucleosynthesis & the isotopic abundance evolution of the galaxy since the big-bang around 13.7 billion years ago; the astrophysical aspects related with the origin of the solar system around 4.5 billion years ago.

• ***Planetary sciences:*** Nature of the sun in its infancy; the irradiation environment and the physico-chemical processes in the early solar system; the planetary differentiation and aqueous alteration of planetesimals, asteroids and minor planets; the thermal evolution of icy bodies (Trans-Neptunian Objects- TNOs); the thermal evolution of satellites of Jupiter and Saturn.

Origin and the early evolution of Mars and Mercury.

Other academic interests: Operation of an 11" Schmidt-Cassegrain astronomy telescope facility.

Visit my astronomy Gallery

The recent 2016 transit of Mercury

List of ten best publications:

1. Bhatia G. K. and **Sahijpal S.** (2016) The early thermal evolution of Mars. ***Meteoritics & Planetary Science J.*** **51**, 138-154.

2. **Sahijpal S.** and Gupta G. (2013) Numerical simulation of the galactic chemical evolution: The revised solar abundance. ***Meteoritics & Planetary Science J.*** **48**, 1007-1033.

3. **Sahijpal S.** and Gupta G. (2011) Did the carbonaceous chondrites evolve in the crustal regions of partially differentiated asteroids? ***J. Geophysical Research (Planets)*** **116**, E06004, pp. 10.

4. Gupta G. and **Sahijpal S.** (2010) Differentiation of Vesta and the parent bodies of other achondrites. ***J. Geophysical Research (Planets)*** **115,** E08001, pp. 15.

5. **Sahijpal S.**, and Gupta G. (2009) The plausible source(s) of ^{26}Al in the early solar system: A massive star or the X-wind irradiation scenario? ***Meteoritics & Planetary Science J.*** **44**, 879-890.

6. **Sahijpal S.**, Soni P. and Gupta G. (2007) Numerical simulations of the planetary differentiation of accreting planetesimals with ^{26}Al and ^{60}Fe as the heat sources. ***Meteoritics & Planetary Science J.*** **42**, 1529-1549.

7. **Sahijpal S.** and Soni P. (2007) Numerical simulations of production of extinct short-lived nuclides by magnetic flaring in the early solar system. ***Meteoritics & Planetary Science J.*** **42**, 1005-1027.

8. **Sahijpal S.** and Soni P. (2006) Stellar nucleosynthetic origin of the extinct short-lived nuclei in the early solar system and the associated isotopic effects. ***Meteoritics & Planetary Science J.*** **41**, 953-976.

9. **Sahijpal S**., Goswami J.N. and Davis A.M. (2000) K, Mg, Ca and Ti isotopic compositions and refractory trace element compositions of hibonites from CV and CM meteorites. ***Geochimica et Cosmochimica Acta*** **64,** 1989-2005.

10. **Sahijpal S.** and Goswami J.N. (1998) Refractory phases in Primitive Meteorites devoid of ^{26}Al and ^{41}Ca: Representative samples of first solar system solids? ***Astrophysical J. Letters*** **509**, L137-140.

Detailed list of my publications from NASA Astrophysics Data System ***Detailed CV***
Researchgate