

## Selected articles from the journals of the Indian Academy of Sciences\*

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### ***Journal of Astrophysics and Astronomy***

Special Issue: The Thirty Meter Telescope – Observatory GenNext  
(Vol. 34, No. 2, June 2013)

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The Thirty Meter Telescope (TMT): An International Observatory  
*Gary H. Sanders* (pp 81–86)

India's Participation in the Thirty-Meter Telescope Project  
*B. Eswar Reddy* (pp 87–95)

The Thirty-Meter Telescope: Science and Instrumentation for a Next-Generation Observatory  
*Luc Simard* (pp 97–20)

A Status Report on the Thirty Meter Telescope Adaptive Optics Program  
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Synergy between Radio and Optical Telescopes: Optical Followup of Extragalactic Radio Sources  
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Spectro-Polarimetry of Self-Luminous Extrasolar Planets  
*Sujan Sengupta* (pp 151–155)

Core-Collapse Supernovae and Gamma-Ray Bursts in TMT Era  
*S. B. Pandey* (pp 157–173)

Generation of a Near Infra-Red Guide Star Catalog for Thirty-Meter Telescope Observations  
*Smitha Subramanian, Annapurni Subramaniam, Luc Simard, Kim Gillies, A. N. Ramaprakash, G. C. Anupama, C. S. Stalin, Swara Ravindranath and B. Eswar Reddy* (pp 175–192)

### ***Journal of Genetics***

Effective population size and evolutionary dynamics in outbred laboratory populations of *Drosophila*  
*Laurence D. Mueller, Amitabh Joshi, Marta Santos and Michael R. Rose*  
(Vol. 92, No. 3, 2013, pp 349–361)

Molecular analysis of intragenic recombination at the tryptophan synthetase locus in *Neurospora crassa*  
*A. Wiest, D. Barchers, M. Eaton, R. Henderson, R. Schnittker and K. McCluskey*  
(Vol. 92, No. 3, 2013, pp 523–528)

Analysis of dinucleotide signatures in HIV-1 subtype B genomes  
*Aridaman Pandit, Jyothirmayi Vadlamudi and Somdatta Sinha*  
(Vol. 92, No. 3, 2013, pp 403–412)

Roles, and establishment, maintenance and erasing of the epigenetic cytosine methylation marks in plants  
*Sushil Kumar, Renu Kumari, Vishakha Sharma and Vinay Sharma*  
(Vol. 92, No. 3, 2013, pp 629–666)

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## ***Pramana (Journal of Physics)***

Monitoring foam coarsening using a computer optical mouse as a dynamic laser speckle measurement sensor

*Jáder Guerrero, Enrique Mejia-Ospino and Rafael Cabanzo*

(Vol. 81, No. 6, 2013, pp 987–994)

The steady state of a particle in a vibrating box and possible application in short pulse generation of charged particles

*Nandan Jha and Sudhir R Jain*

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Novel experimentally observed phenomena in soft matter

*Ranjini Bandyopadhyay*

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A cellular automata model for ant trails

*Sibel Gokce and Ozhan Kayacan*

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*Anirban Biswas and Debasish Majumdar*

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The Standard Model with one universal extra dimension

*A. Cordero-Cid, M. Gómez-Bock, H. Novales-Sánchez and J J Toscano*

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Indirect searches for dark matter

*Marco Cirelli*

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Applications of the AdS/CFT correspondence

*Shiraz Minwalla*

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Electric field enhancement at multiple densities in laser-irradiated nanotube plasma

*U. Chakravarty, P. A. Naik and P. D. Gupta*

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Statistical analysis of the road network of India

*Satyam Mukherjee*

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Coupled Higgs field equation and Hamiltonian amplitude equation: Lie classical approach and (G'/G)-expansion method

*Sachin Kumar, K. Singh and R. K. Gupta*

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A rotating charged black hole solution in  $f(R)$  gravity

*Alexis Larrañaga*

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Pattern formation in arrays of chemical oscillators

*Neeraj Kumar Kamal*

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Statistical mechanics of gravitating systems and... *some curious history of Chandra's rare misses!*

*T. Padmanabhan*

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Scaling relation for determining the critical threshold for continuum percolation of overlapping discs of two sizes

*Ajit C. Balram and Deepak Dhar*

(Vol. 74, No. 1, 2010, pp 109–114)