CURRICULUM VITAE OF PROFESSOR TANUKA CHATTOPADHYAY

1. Name : PROF. TANUKA CHATTOPADHYAY(KANJILAL)

   URL : http://www.caluniv.ac.in/academic/department/Apl-Math.html

   Photo :

2. Address : (R) 137 Nagendra Nath Road, Dum Dum, Calcutta – 700028.
   (O) 92 A.P.C Road, Calcutta 700009, INDIA.

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3. E-Mail Addresses :

   tchatappmath@caluniv.ac.in
   tanuka2008@gmail.com
   tanuka@associates.iucaa.in

4. Date of birth : January 26, 1963

5. Current Position : **Professor**
   Department of Applied Mathematics,
   University of Calcutta
   92 A.P.C.Road, Calcutta 700009, INDIA.

6. 15. No. of PhD Awarded**: 03**

   (i). Saptarshi Mondal: In the area of Astrostatistics
   (ii) Pradip Karmakar : In the area of Astrophysics
   (iii) Tuli De : In the area of Astrostatistics

   Ongoing: **06 (and to be submitted: 01, submitted: 01)**

7. Academic Qualification :

College/ university from which the degree was obtained	Abbreviation of the degree
1. Presidency College,(Now Presidency Univ) University of Calcutta	B.Sc
2. University of Calcutta	M.Sc
3. University of Calcutta	PhD(Sc)

8. Title of Thesis : **Explosion in the central region of the Galaxy, the consequent star formation, formation of molecular clouds and structure of shock.**

9. Fellowships : **Passed National Eligibility Test (NET)** for doing Ph.D. jointly conducted by University Grants Commission (UGC) and Council of Scientific and Industrial Research (CSIR), India in 1988.

10. Publications : **41,** (36 in Journals, 3 Books, 1 Book Chapter, 1 in proceeding) **Given below.**

11. Courses taught:

General Theory of Relativity,
Astrophysics, Computational Method
Numerical Analysis, Electricity & Magnetism,
Continuum Mechanics, Dynamical Meteorology.

12. Awards:

(i) Qualified for National Eligibility Test (NET) in 1988.

(ii) Selected as Visiting Scholar in Pennsylvania State University, Centre for Astrostatistics, USA **during May 2007.**

(iii) Selected as Visiting Scholar in Universit´e Joseph Fourier - Grenoble 1/CNRS, Laboratoire d'Astrophysique de Grenoble (LAOG) UMR5571, BP 53, F-38041 Grenoble cedex 9,**France during June-July, 2012**

(iv) Awarded Outstanding Publications in Astrostatistics, 2016 by International Astroststistics Association for Statistical Methods for Astronomical Data Analysis
Asis Kumar Chattopadhyay and Tanuka Chattopadhyay
Springer Series in Astrostatistics, **2014**.

URL : http://www.brera.mi.astro.it/~andreon/IAA/IAA-2016AWARDS-01May2016.pdf

(v) Selected as Visiting Associate of Inter University centre for Astronomy & Astrophysics (IUCAA) , Pune since 2002 (during 2002-05 ,2005-08, 2008-10, 2011-14, 2014-17, 2017-20).

(vi) Selected as Individual Member of International Astronomical Union (IAU) 2018.

(vii) Selected as Visiting Scholar Duing Fall 2018 in the Department of Mathematics & Statistics, Concordia University, Montreal, Canada for Teaching and Research.

13: Life Members of :
Astronomical Society of India (ASI)
International Astrostatistics Association (IAA)
Indian Association for Productivity, Quality & Reliability (IAPQR), India

14. Projects:

Completed:

(i) Awarded a Minor Research Project from UGC on **"A study on the rotation curves of spiral galaxies and analyses on nature of dark matter"** during **2001-2003**
F.No. PSW-019/01-02, PI: Tanuka Chattopadhyay

(ii) Awarded a **Major Research Project** from UGC on **"Globular Clusters and Galaxy formation" during 2005 -2007.**
F.No. 30-241/2004(SR), PI: Tanuka Chattopadhyay

(iii) Awarded a **Major Research Project** from DST on **"Dwarf galaxies, Ultra Compact dwarf galaxies and globular clusters" during 2010-13.**
F.No. SR/S2/HEP-25/2009 , PI: Tanuka Chattopadhyay

(iv) Awarded a **Major Research Project from DST on : Study of galaxy formation through associated bulges, IGIMF and globular clusters during 2014 - 17. F.No. SB/S2/HEP-015/2013**
PI: Tanuka Chattopadhyay

(v) Awarded **an Indo_French International Project from IFCAM (Indo French Centre for Applied Mathematics, IISC, Bangalore, India) on "Statistical Modelling in Astronomy" During 2015-17.**
From India:
PI: Asis Kumar Chattopadhyay
Members: Tanuka Chattopadhyay, Kalyan Das
From France:
PI: Frederic.Areno, Members: Christian Roberts, Didier Fraix Burnet

15. LIST OF PUBLICATIONS OF PROF TANUKA CHATTOPADHYAY IN REPUTED JOURNALS (36)

1. Fragmentation of molecular cloud in a polytropic medium.

Ashok Mondal & Tanuka Chattopadhyay
New Astronomy, 2018 (in press)
Impact factor: 0.92 (2018)

2. Two phase formation of massive elliptical galaxies: study through cross-correlation including spatial effect

Soumita Modak, Tanuka Chattopadhyay, Asis Kumar Chattopadhyay
Ap&SS , 2017, 362, 206
Impact factor : 1.622 (2016)

3. Clustering of Gamma-Ray bursts through kernel principal component analysis

Soumita Modak, Asis Kumar Chattopadhyay, Tanuka Chattopadhyay
Communications in Statistics-Simulation and Computation (in Press)
Impact factor: 0.397

4.Episodic Model For Star Formation History and Chemical Abundances in Giant and Dwarf Galaxies

Suma debsarma, Tanuka Chattopadhyay, Sukanta Das, Daniel Pfenniger
MNRAS, 2016, 462, 3739.
Impact factor : 4.952 (2015)

5.Influence of binary fraction on the fragmentation of young massive clusters—a Monte Carlo simulation

Tanuka Chattopadhyay, Abisa Sinha, Asis Kumar Chattopadhyay
Ap&SS, 2016, 361, 120.
Impact factor: 2.263 (2015)

6. Multivariate analysis of the globular clusters in M87

Sukanta Das, Tanuka Chattopadhyay, Emmanuel Davoust
PASA, 2015, 32, 41.
Impact factor: 3.245(2015)

7. Study of the nature of dark matter in halos of dwarf galaxies

Pradip Karmakar, Tanuka Chattopadhyay, Asis Kumar Chattopadhyay
Ap&SS , 2015, 358, 46.
Impact factor: 2.263(2015)

8.Cosmic history of integrated galactic stellar initial mass function : a simulation study

Tanuka Chattopadhyay, Tuli De, Bharat Warlu, Asis Kumar Chattopadhyay
ApJ , 2015, 808, 24.
Impact Factor: 5.99 (2015)

9. Charged star in (2+1)-dimensional gravity

Ayan Banerjee , Farook Rahaman , Tanuka Chattopadhyay
Ap&SS, 2015, 357, 29.
Impact Factor: 2.263 (2015)

10. Formation of dwarf ellipticals and dwarf irregular galaxies by interaction of giant galaxies under environmental influence

Tanuka Chattopadhyay, Suma Debsarma, Pradip Karmakar and Emmanuel Davoust
New Astronomy **, 2015,** 34, 151.

Impact factor: 1.850 (2015)

11. Use of cross correlation function to study formation mechanism of massive elliptical galaxies

Tuli De, Tanuka Chattopadhyay, Asis Kumr Chttopadhyay
PASA, 2014, 31, 47.
Impact Factor: 2.653

12. Performance Comparison of Clustering Techniques on the basis of galaxy data.
Tuli De, Tanuka Chattopadhyay and Asis Kumar Chattopadhyay
CSA Bulletin 2013, 65, 155.

13.Multivariate study of dynamically hot stellar systems and origin of ultracompact dwarf galaxies.
Tanuka Chattopadhyay and Pradip Karmakar
New Astronomy **, 2013,** 22, 22
Impact factor: 1.850

14. Independent Component Analysis for the objective classification of globular clusters of the galaxy NGC 5128.
Asis Kumar Chattopadhyay, Saptarshi Mondal and **Tanuka Chattopadhyay**
Computational Statistics and data analysis, **2013**, 57,17.
Impact factor : 1.373

15. A six-parameter space to describe galaxy diversification
D. Fraix-Burnet, **T. Chattopadhyay**, A. K. Chattopadhyay, E. Davoust, and M. Thuillard
A&A, **2012**,545, A80.
Impact factor: 4.587

16.Uncovering the formation of ultracompact dwarf galaxies by multivariate statistical analysis.
Tanuka Chattopadhyay, Margarita Sharina, Emmanuel Davoust, Tuli De and Asis Kumar Chattopadhyay
ApJ, **2012**, 750, 91
Impact factor: 7.43

17.Fundamental Plane for galaxy data with measuremental error.
Saptarshimondal, Bharat Warule and **Tanuka Chattopadhyay**
CSA Bulletin, **2011,** 62, 277.

18.Modeling of the Initial Mass Function using the Metropolis Hastings Algorithm
Tanuka Chattopadhyay and Abisa Sinha

ApJ, **2011**, 736, 152
Impact factor: 7.43

19.Statistical analysis of dwarf galaxies and their globular clusters in the Local Volume
Tanuka Chattopadhyay, Margarita Sharina and Pradip Karmakar
ApJ, **2010**,724,678.
Impact factor: 7.43

20..Structures in the fundamental plane of early-type galaxies.
Didier Fraix-Burnet, M.Dogue, **T Chattopadhyay**, A.K.Chattopadhyay and Emmanuel Davoust.
MNRAS, **2010**,407, 2207.
Impact factor: 4.9

21.Study of NGC5128 globular clusters under multivariate statistical paradigm.
Asis Kumar Chattopadhyay, **Tanuka Chattopadhyay**, Saptarshi Mondal, Margarita Sharina and Emmanuel Davoust.
ApJ, **2009,** 705, 1533.
Impact factor: 7.4

22.Horizontal Branch Morphology of Globular Clusters: A Multivariate Statistical Analysis
Jogesh Babu, **Tanuka Chattopadhyay**, A.K.Chattopadhyay and Saptarshi Mondal
ApJ, **2009**, 700, 1768.
Impact factor: 7.4

23.Globular Clusters in the Milky Way and Dwarf Galaxies - A Distribution-Free Statistical Comparison
Saptarshi Mondal, Asis Kumar Chattopadhyay and **Tanuka Chattopadhyay**
ApJ, **2008**, 683, 172.
Impact factor: 7.4

24.Statistical evidences of three classes of Gamma Ray Bursts
Tanuka Chattopadhyay, Ranjeev Misra, Asis Kumar Chattopadhyay and Malay Naskar
ApJ, **2007**, 667, 1017.
Impact factor: 7.4, Citation (till date): 37

25.Globular Clusters of LOCAL Group – Statistical Analysis
Tanuka Chattopadhyay and Asis Kumar Chattopadhyay
A&A, **2007,** 472, 131.
Impact factor: 4.587

26. **Objective Classification of Spiral Galaxies having Extended Rotation Curves beyond Optical Radius.**

Tanuka Chattopadhyay and Asis Kumar Chattopadhyay
AJ, **2006,** 131, 2452.
Impact factor: 4.2

27.Random Fragmentation of Molecular Cloud and initial mass function – A Monte Carlo simulation study

Asis Kumar Chattopadhyay, **Tanuka Chattopadhyay** and B.Basu
Systems Analysis, Modelling and Simulation, 2003, 43(12), 1697.
Taylor and Francis.

28.On the propagation of density waves through the disk of the Galaxy : Density and velocity perturbation.

Sabitri Tah, S.N. Pal, B. Basu **and T Kanjilal**
Indian Journal of Physics, **1999,** 73B(4), 579 .

29.The evolution of star formation efficiency and mass spectrum during the formation of Star cluster.

Tanuka Kanjilal and B.Basu
Indian Journal of Physics, **1997,** 71B(2), 121

30.Structure of explosion shocks in the central region of the Galaxy and their role on Star formation.

Tanuka Kanjilal and B.Basu
Indian Journal of Physics, **1992**, 66B(3), 245.

31.A study of the fragmentation of molecular clouds and the form of initial mass function for low mass protostellar fragments.

Tanuka Kanjilal and B.Basu
Ap&SS, **1992,** 193, 17.
Impact factor : 1.686

32.Cooling of gas behind the explosive shocks and consequent Star Formation in the central region of a disk Galaxy.

Tanuka Kanjilal and B.Basu
Indian Journal of Physics, **1991,** 65B(4), 299.

33.Thermal instability analysis of the growth of molecular clouds in the Central region of the Galaxy.

M.R.Gupta**, Tanuka Kanjilal** and B.Basu
Ap&SS, **1991**,176, 85.

Impact factor : 1.686

34.Explosion triggered star formation in the central region of the Galaxy
B.Basu and **Tanuka Kanjilal**
Ap&SS, **1989,** 152, 203.
Impact factor : 1.686

35.Potential convective instability analysis on squall days at Calcutta.
Tanuka Kanjilal, B.Basu, A.Roy and M.C Sinha
Mausam**, 1989,** 40(4), 409

36. The growth of thunderstorms and latent instability over eastern India.
Tanuka Kanjilal, B.Basu, A.Roy and M.C Sinha
Mausam**, 1989,** 40(3), 293.

LIST OF PROCEEDINGS

Conference Proceeding:

1. Behaviour of the slopes of rotation curves –A multivariate statistical approach, (**jointly with Ajit Kembhavi and A. K Chattopadhyay**) **'High Resolution Infrared Spectroscopy in Astronomy', (2005), Proceeding of ESO workshop , pp 387-390,Springer Verlag**

LIST OF BOOKS
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1. **Computer Applications of Mathematics & Statistics (jointly with A.K. Chattopadhyay) -- ASIAN BOOKS, INDIA (2006**)
2. **An Introduction to Astrophysics (jointly with B.Basu and S.N.Biswas) -- PRENTICE HALL OF INDIA (2010)**
3. **Independent Component Analysis for dimension reduction classification : Hough Transform and CASH algorithm. (Book Chapter)**

Asis Kr Chattopadhyay, **Tanuka Chattopadhyay**, Tuli Ghosh and Saptarshi Mondal. Astrostatistical Challenges for New Astronomy**, Springer Series in Astrostatistics**, **2012**, Editor Joseph Hilbe.

4.Statistical Methods for Astronomical Data Analysis
Asis Kumar Chattopadhyay and Tanuka Chattopadhyay
- **Springer Series in Astrostatistics**, **2014**.

16. No. of M.Phil projects awarded**: 02**

17. Collaborative research work: (i)Visited **Inter University Centre for Astronomy and Astrophysics** in May 2000 , July 2001, June 2003 and January 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016., 2017.

(ii) **Pennsylvania State University**, Centre for Astrostatistics, USA **during May 2007**

(iii) ***Universit´e Joseph Fourier - Grenoble 1/CNRS,*** Laboratoire d'Astrophysique de Grenoble (LAOG) UMR5571, BP 53, F-38041 Grenoble cedex 9,**France during June-July, 2012**

(iv) Observatoire de Paris Meudon, F-92195 Meudon Cedex during June 23 - July 11 ,2016

17. Collaborators**:** **Prof Ajit Kembhavi**, Former Director, IUCAA Pune
Prof Ranjeev Misra, IUCAA Pune India
Prof G.J.Babu, Penn State USA
Dr Margarita Sharina
Special Astrophysical Observatory, Russian Academy of Sciences, N. Arkhyz, KCh R, 369167, Russia.
Dr Emmanuel Davoust
Laboratoire d'Astrophysique de Toulouse-Tarbes, Universit´e de Toulouse, CNRS,
Dr Didier Fraix Burnet
Universit´e Joseph Fourier - Grenoble 1/CNRS, Laboratoire d'Astrophysique de Grenoble (LAOG) UMR5571, BP 53, F-38041 Grenoble cedex 9,France

Prof A.K. Chattopadhyay , University of Calcutta
Prof Daniel Pfenniger, University of Geneva, Switzerland.

18..Present field of interest: **Star formation, Star clusters (especially Globular Clusters),Galaxies, Dwarf galaxies, Ultra Compact Dwarf Galaxies, Gamma Ray Burst, Statistical Simulation and Computation.**

19. Seminar/Symposia: Participation in Seminars / Workshops / Conferences /series lectures .
International Level:

(i) International Symposium on "M.N.Saha, S.N.Bose and N.R.Sen: Contribution to Astrophysics and Impact", at Kolkata , November 28-30, **1995, presented paper.**

(ii) International Symposium on Pure and Applied Mathematics (ISPAM 2002) , organized by Calcutta Mathematical Society, held in Calcutta during Dec 14 – 16, **2002**, **presented a paper.**

(iii) International Symposium on Analysis, Manifolds and Mechanics, organized by M. C. Chaki Centre for Mathematics and Mathematical Sciences, held in Calcutta during Feb 5 – 7, **2003**, **presented a paper.**

(iv) Professor K. M. Hossain Memorial International Seminar cum Workshop on recent advances in Exploratory Data Analysis : Models, Methods and Computer Algorithms, organized by Dept of Statistics, University of Rajsahi , held in **Bangladesh** during Oct 14-16, **2003**, **Invited talk.**

(v) International Workshop on High Resolution Infrared Spectroscopy
. in Astronomy, organized by European Southern Observatory(ESO), in **Munich, Germany** during Nov 18 – 21, **2003, presented a paper**

(vi) International Workshop on "Multiscale Geometric Methods in Astronomical Data Analysis" by Institute of Pure and Applied Mathematics(IPAM) of **University of California, Los Angeles** During Nov 8-12**,2004.**

(vii) International Workshop on " Probing Stellar Populations Out to Distant Universe" **by INAF Astronomical Observatory in Cefalu, Sicily, Italy** during September 7-19,**2008, presented paper.**

(viii**)** **Invited** speaker in "Tenth Islamic Countries Conference on Statistical Sciences (ICCS – X)" to be held in " The American University of Cairo (AUC), New Cairo, **Egypt**" during 20-23 Dec, **2009.** **Invited talk.**

(ix) Delivered **Series Lecture** at Universit´e Joseph Fourier - Grenoble 1/CNRS, Laboratoire d'Astrophysique de Grenoble (LAOG) UMR5571, BP 53, F-38041 Grenoble cedex 9,**France** **on "Courses on Statistics" during June, 2012 .Invited talks.**

1. Monte Carlo Simulation
2. Introduction to R
3. Initial Mass Function

(x) Delivered **invited talk** in **World Statistics Congress 2015** held In Rio de Janeiro, Brazil during July 26 – 31, 2015.

(xi) Delivered **invited talk** in the **International Conference** organized by IAPQR held during January 4 – 6, 2018 in Kolkata, India.

(xii) **Delivered invited talk in** in Small Area Estimation and Other Topics of Current Interest in Surveys, Official Statistics, and General Statistics A Celebration of Professor Danny Pfeffermann's 75th Birthday (SAE 2018) June16–June18, 2018 held in **Shanghai, China.**

National Level:

(i) National Seminar on Mathematics & its Applications,**Department of Pure Mathematics, CU,** March 26-27, 2004. **Invited talk.**

(ii) National Symposium on "Continuum Mechanics in Perspective of Modern Trends", Department of Applied Mathematics, CU, March 21-22, 2005. **Presented paper.**

(iii) Workshop on Astrostatistics, Calcutta University, December 21-23, 2005. **Invited talk.**

(iv) Workshop on Advanced Statistical Techniques on Astronomy, October 4-8, 2010, **Department of Statistics, CU**. **Invited talk.**

(v) IUCAA SAC (Scientific Advisory Committee) Meeting July 25-29,2008.

IUCAA, Pune, **Invited talk.**

(vi) Introductory Workshop on Astrophysics, **Department of Physics, West Bengal State University,** November 26-28, 2010. **Invited talk.**

(vii) Application of Statistical techniques in the Natural Science, **Department of Statistics, CU,** December 30-31, 2010**. Invited talk.**

(viii) Introductory Workshop on Astrophysics, Indian School of Mines, **Dhanbad, Department of Applied Mathematics**, February , 2011.
Invited talk.

(ix) Workshop on Astrostatistics and Statistical Data Analysis, Nov 23-25, 2010**.** **Department of Statistics**, Burdwan University, **Invited talk.**

(x) Delivered **Series Lectures** on " **Star Formation**" under DSA SAP Programme at **Department of Physics** , Assam University, Silchar during April 28-31, **2011**.

1. Stellar Structure
2. Stellar Evolution
3. Initial Mass Function
4. Globular Clusters

(xi) Indian Science Congress, January 3-7,2012, **Bhubaneswar**. **Invited talk.**

(xii) Refresher Course on Recent Trends in Mathematics, August 6-29, 2012. Department of Applied Mathematics, **CU**. **Invited talk**

(xiii) National Conference on "Recent Trends in Interdisciplinary Science, Astrophysics & Space Science, November 3-4, 2012, Department of Physics, M.G. Govt PG College, **Haldwani. Invited talk.**

(xiv) Workshop on Introductory Course in Astrophysics
Hailakandi College, Silchar, January 29-31, 2013, **Invited talk.**

(xv) Workshop on General Theory of Relativity and Cosmology, Feb 12-14, 2013, Midnapur College, **Invited talk.**

(xvi) Workshop on Astronomical Data Analysis, Dec 17-18, 2013, North Bengal University, **Invited talk.**

(xvii) Introductory Workshop on Astrophysics, Feb 10-12, 2014, Manipur University, **Invited talk.**

(xviii) Workshop on Space Mission, IITKGP Student Forum, April 10-11, 2014, **Invited talk.**

(xix) Introductory Workshop on Astrophysics and Cosmology, Aliah University Kolkata, September 27-28, 2016, **Invited talk.**

(xx) **Invited lecture**, Department of Physics, Amity University entitled "Study on galaxies and related statistical modelling" **October 25, 2017.**

20. Organization of workshop/Seminar/Refresher Course:

1. Workshop on Astrophysics and Cosmology, Department of Applied Mathematics,January, 9-10, 2010, in collaboration with IUCAA, Pune.(**Coordinator**)

2. Winter School on Recent Trends in Mathematics, Department of Applied Mathematics, December 14-21 , 2011.
   (Joint Coordinator)

3. Refresher Course in Mathematics, Department of Applied Mathematics, August 6-29, 2012.
   (Joint Coordinator)

4. Workshop on Virtual Observatory in Department of Applied Mathematics, in collaboration with IUCAA, Pune
   December 3-7, 2012. **(Coordinator)**

5. Workshop on Trends and Challenges in Astronomy and Astrophysics in Department of Applied Mathematics in collaboration with IUCAA Resource Centre , Kolkata.
   September 10-12, 2015 **(Coordinator)**

6. **Taken part in the planning and purchase of 14" Cassegrain Schmidt Telescope in the Department of Applied Mathematics, University of Calcutta during 2011 – 2015 under DST PURSE Programme. The Telescope has been installed in December 2015.**

7. Workshop on Photometry with 14" Schmidt Telescope in the Department of Applied Mathematics, December 15, 2017 (**Convenor).**

নক্ষত্রপুঞ্জ নাগালে আসবে পড়ুয়াদের

রাজাবাজার সায়েন্স কলেজে চালু হল কম্পিউটারচালিত টেলিস্কোপ

এই সময়: কলকাতা বিশ্ববিদ্যালয়ের ফলিত গণিত বিভাগের কাছে স্মরণীয় হয়ে রইল ১৪ ডিসেম্বর ২০১৫। এই দিনই কলকাতা বিশ্ববিদ্যালয়ের উপাচার্য সুগত মারজিত উদ্বোধন করলেন ১৪ ইঞ্চি ব্যসের একটি প্রতিফলক টেলিস্কোপ। শিক্ষা প্রতিষ্ঠানের ফলিত গণিত বিভাগের প্রধান থেকে শুরু করে জ্যোতির্পদার্থবিদ্যা বিভাগের দায়িত্বপ্রাপ্ত অধ্যাপক এমন ছাত্রছাত্রীরা নতুন টেলিস্কোপ নিয়ে কাজ করাতে পারার আনন্দে মাতোয়ারা।

২০১১ সালেই রাজাবাজার সায়েন্স কলেজ থেকে ডিপার্টমেন্ট অফ সায়েন্স অ্যান্ড টেকনোলজির কাজে প্রস্তাব দেওয়া হয় ফলিত গণিত বিভাগে গবেষণা ও পড়াশোনার কাজে একটি শক্তিশালী টেলিস্কোপ বসানোর জন্য। ২০১২-১৩ সালে এর জন্য তৈরি করা হয় বিশেষ তহবিলও। এর পর টেন্ডার ডাকা হয়। আগেই ঠিক হয়েছিল, মার্কিন সংস্থা সিলেস্ট্রনের থেকেই শক্তিশালী এই টেলিস্কোপ কেনা হবে। টেলিস্কোপটি যাতে প্রযুক্তিগত ভাবে অত্যাধুনিক পর্যায়ের হয় এবং পুরোটাই কম্পিউটার নিয়ন্ত্রিত হয় সে দিকে নজর রেখেছিল রাজাবাজার সায়েন্স কলেজ।

ফলিত গণিত বিভাগের প্রধান অধ্যাপক কৃষ্ণা কুণ্ডু ও বিভাগের জ্যোতিপদার্থ বিভাগের দায়িত্বে থাকা অধ্যাপক তণুকা চট্টোপাধ্যায় জানিয়েছেন, টেলিস্কোপটি কিনতে এবং আমেরিকা থেকে সেটি নিয়ে আসতে প্রায় ১৩ লক্ষ টাকা খরচ হয়েছে। এ ছাড়া শিক্ষা প্রতিষ্ঠানের ছাদে টেলিস্কোপটি বসানোর জন্য যে অস্থায়ী 'অবজারভেটরি' তৈরি করা হয়েছে, সেটি ও অন্য কিছু মেরামতির কাজ করতে আরও পাঁচ লক্ষ টাকা খরচ হয়েছে।

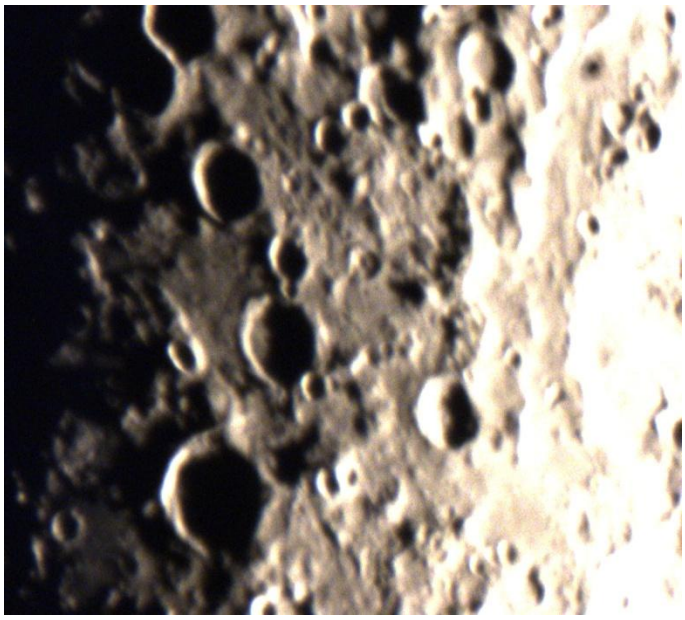
টেলিস্কোপে চোখ সুগত মারজিতের — জয়ন্ত সাউ

টেলিস্কোপটি বসাতে এবং কম্পিউটারের সঙ্গে টেলিস্কোপটির উপযুক্ত সমন্বয় করার কাজটি করেছেন মুম্বইয়ের নেহরু তারামণ্ডলের অধ্যক্ষ অরবিন্দ পরাঞ্জাপে, কলকাতার এমপি বিড়লা তারামণ্ডলের সায়েন্টিফিক অফিসার বিপাশ দাশগুপ্ত ও কলকাতার সেন্ট জেভিয়ার্স কলেজের সায়েন্টিফিক অফিসার বাপ্পাদিত্য মান্না। সেন্ট জেভিয়ার্স কলেজেও একটি ১৪ ইঞ্চি টেলিস্কোপ রয়েছে। কিন্তু, সেটি শুধুমাত্র কম্পিউটার নিয়ন্ত্রিত নয়।

সোমবার টেলিস্কোপটির উদ্বোধনী অনুষ্ঠানে যোগ দিতে এসে সুগত মারজিত জানান, বিশ্ববিদ্যালয়ের গণিত বিভাগের সবঙ্গীন উন্নয়ন ছিল আশুতোষ মুখোপাধ্যায়ের স্বপ্ন। বিশ্ববিদ্যালয়ে এমন একটি টেলিস্কোপ বসানোয় সেই স্বপ্ন পূর্ণতা পাওয়ার দিকে আরও একধাপ এগিয়ে গেল।

উদ্বোধনী অনুষ্ঠানের আগের কয়েক দিন ধরে ফলিত গণিত বিভাগের অধ্যাপক ও ছাত্রছাত্রীরা মিলে ক্রমাগত আকাশ দেখার মহড়া দিয়ে গিয়েছেন। কলকাতার বায়ুদূষণ ও আকাশে গত কয়েক দিন ধরেই হালকা মেঘ থাকার জন্য সব সময় যে রাতের আকাশ পর্যবেক্ষণের কাজ খুব সহজ হয়েছে তা নয়, তবে কেবলমাত্র বৃহস্পতি, শনি বা চাঁদ-ই নয়, আকাশগঙ্গা ছায়াপথের প্রতিবেশী অ্যান্ড্রোমিডা নামের নক্ষত্রপুঞ্জকেও অত্যন্ত স্পষ্ট দেখে ভীষণ উত্তেজিত ফলিত গণিতের ছাত্রছাত্রীদের মধ্যে একতা সেন, শিবানী সর্দার, জয়দীপ তহসিলদার ও নিবেদিতা মাইতিরা। সদ্য পোস্ট ডক্টরাল থিসিস জমা দেওয়া প্রদীপ কর্মকার জানালেন, মহাকাশের বিভিন্ন তথ্য সংগ্রহ ও মহাজাগতিক বস্তুগুলির ওপর নিয়মিত নজর রাখার জন্য এই যন্ত্রের গুরুত্ব অসীম।

কলকাতার পজিশন্যাল অ্যাস্ট্রোনমি-তে বহুকাল কাজ করার পর অবসর নিয়ে বর্তমানে এমপি বিড়লা তারামণ্ডলে সায়েন্টিফিক অফিসার হিসেবে কর্মরত বিপাশ দাশগুপ্ত জানিয়েছেন, 'এমন একটি যন্ত্র হাতে নিয়ে কাজ করার অভিজ্ঞতা ছাত্রছাত্রীদের এই বিষয়টির প্রতি আকৃষ্ট করবে। বিভিন্ন বাধা পেরিয়ে কম্পিউটর ও টেলিস্কোপের সমন্বয় ঘটানোর কাজটি অত্যন্ত চ্যালেঞ্জিং ছিল। শেষ পর্যন্ত তা সম্ভব হয়েছে।'



Picture of Craters of Moon taken with Skyris 445 camera and 14'' Schmidt Telescope by the students on March 22, 2018

New telescope brings galaxy closer to CU

TIMES NEWS NETWORK

Kolkata: The department of applied mathematics in Calcutta University installed an advanced 14" Cassegrain Schmidt Telescope at its APC Road campus on Monday. Among those present at the inauguration were Calcutta Univesrity VC Sugata Marjit and pro-VC Swagata Sen.

The instrument will help students train for the observational part of astrophysics so they can opt for the subject during their research career. The university had sanctioned the purchase of this telescope and related accessories under the DST PURSE Program in 2011.

"This is the only telescope of its kind in Kolkata. There are two other 14" telescopes at St Xavier's College and Kalyani Univesrity, but they are different models. A 14" telescope was also installed at the Positional Astronomy Centre several years ago but this one is an advanced version. The telescope has a computerized equatorial mount system, Celestron Skyris 44SC Astronomical Camera and Optech SSP-3A UBVRI Photometer. With this advanced telescope students will be

Kamalendu Bhadra

Calcutta University VC Sugata Marjit inaugurates the telescope at Rajabazar Science College

able to perform observations of astrophysical objects like stars, star clusters and even galaxies. The photometer will help in photometry of astronomical objects and measure the period of variable stars," said Bipash Dasgupta, scientific officer, M P Birla Planetarium and M P Birla Institute of Fundamental Research. He, along with Arvind Paranpye, director, Nehru Planetarium, Mumbai, installed the telescope.

Tanuka Chattopadhyay, professor and teacher-in-charge (telescope), will be in charge of the telescope.

"The CCD camera will help students measure the diameter of various extended objects. The images can be saved and analyzed using special software. Using the photometer, we can measure the brightness of variable stars and track their movements. In the last phase of this project, we