# INDO-ITALIAN EXECUTIVE PROGRAMME OF COOPERATION IN SCIENTIFIC & TECHNOLOGICAL COOPERATION

1-1-1-201 8-1-2-75-02-201 8-1-2-05-02-20-201 8-1-2-20 05-02-202 03-1-2-20

### (Proforma for Application for Joint Research)

Type of Proposal	1. PROPOSAL FOR EXCHANGE OF RESEARCHERS	$\checkmark$
(pls tick only one appropriate box)	2. SIGNIFICANT BILATERAL PROJECT	

# A. PROJECT IDENTIFICATION

1. Title of the Project:

## AstroSat: a new window on General Relativity

- 2. Duration of the Project in months: 29
- 3. Field of Science & Technology covered by the proposal: (Please specify the exact area as given in the call)

Physical and Chemical Sciences

Sola Della

Key words qualifying the scope of the proposal: Astrophysics, General Relativity, X-ray Astronomy, Space Astronomy

4. Project Investigators (PI) & Collaborating Institutions

	Indian	Italian
Name of PI	Dipankar Bhattacharya	Tomaso M.M. Belloni
Designation	Professor	First Researcher
Date of Birth	29 May 1959	25 December 1961
Institute Contact Address	Inter-University Centre of Astronomy and Astrophysics (IUCAA), Meghnad Saha Road, Pune 411007, Maharashtra, India	INAF – Osservatorio Astronomico di Brera, Via E. Bianchi 46, Merate, Italy
Telephone No. : Office	+912025604210	+390272320416
Residence	+912025604403	÷390398951336
Fax No.	+912025604699	+390272320601
e-mail	dipankar@iucaa.in	tomaso.belloni@brera.inaf.it

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	Devices Miner	Disastanta Gazalla	
Name of the co- investigator(s)	Ranjeev Misra	Piergiorgio Casella	
Designation	Professor	Senior Researcher	
Date of Birth	13 November 1967	13 October 1973	
Institute Contact Address	Inter-University Centre of Astronomy and Astrophysics (IUCAA), Meghnad Saha Road, Pune 411007, Maharashtra, India	INAF – Osservatorio Astronomico di Roma, via Frascati 33, Monte Porzio Catone, Italy	
Telephone No. : Office	+912025604116	+3906942864476	
Residence	+912025604405		
Fax No.	+912025604699	+390694286406	0
e-mail	rmisra@iucaa.in	piergiorgio.casella@oa- roma.inaf.it	0.
Name of the co- investigator(s) Designation	Gulab Chand Dewangan Associate Professor		~)
Date of Birth	28 March 1972		
Institute Contact Address	Inter-University Centre of Astronomy and Astrophysics (IUCAA), Meghnad Saha Road, Pune 411007, Maharashtra, India		
Telephone No. : Office	+912025604211		
Residence	+912025604470		
Fax No.	+912025604699		
e-mail	gulabd@iucaa.in		0
Name of the co- investigator(s) Designation	Devraj Pawar Assistant Professor		9
Date of Birth	16 April 1977		-
Institute Contact Address	Physics Department, R Jhunjhunwala College, Ghatkopar(W), Mumbai 400086, India		
Telephone No. : Office	+912225151763		
Residence	+912225802604		-
Fax No.	+912225150957		
e-mail	devrajdc@gmail.com		

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### C. ADMINISTRATIVE & FINANCIAL INFORMATION

(Applicable for proposal under category 1 (PROPOSAL FOR EXCHANGE OF RESEARCHERS)

1.	Project	Cost	INR	com	ponent)

14	Excha		
Year	India to Italy (Airfare+local banaport+visa fees+insurance)	Italy to India (per diam + guest house charges)	Total
1st Year	INR 85000	INR 30000	INR 115000
2nd Year	INR 85000	INR 30000	INR 115000
3rd Year	INR 85000	INR 3000C	INR 115000
Total	INR 255000	INR 90000	INR 345000

[The Italian component will be Euro 1300 per year in local support of Indian visitors plus the international travel expenses of the Italian visitors]

Signatures of the Project Investigators & Co-investigators

(DEVENSP) INDIAN

Tim Ballin

ITALIAN

3. Declaration from the Heads of the Collaborating Institutions:

It is certified that !.

ii)

The Institutions agree to participate in this Joint Research Project; 1)

the Institutions shall provide infrastructure & necessary facilities for implementing the joint project;

iii) the Institutions assume to undertake financial & other management responsibility for the part of the project work to be carried out at their institution; and

iv) the back-up funding for manpower, consumable etc. is available to this project.

Signature & Seal of the Head of the Institutions

INDIAN

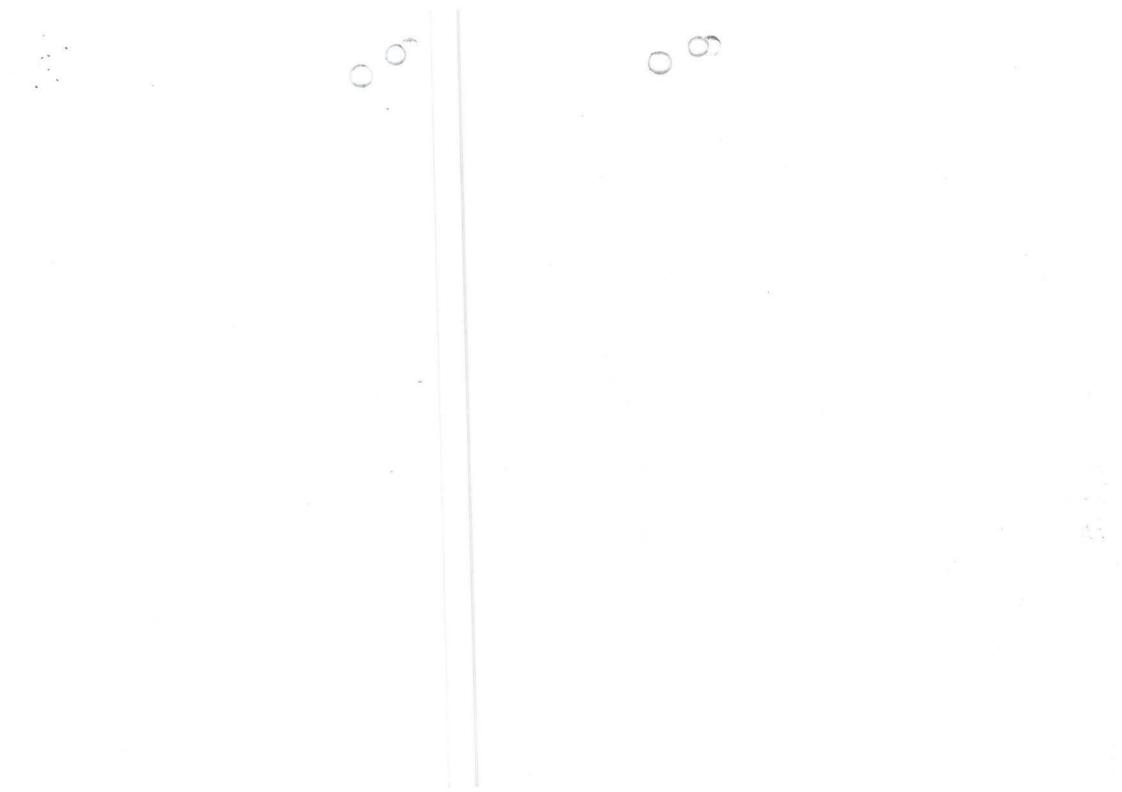
SOMAK RAYCHAUDHURY Director Inter-University Centre for Astronomy and Astrophysics Pune - 411 007.

IL DIRETTORE DR. GIANPIERO TAGLIAFERRI ACCHIO ASTRONOMICO DI MONTA

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### No. INT/Italy/P-11/2016 (ER) Government of India Ministry of Science and Technology Department of Science & Technology (International Bilateral Cooperation Division)

Technology Bhavan, New Mehraulli Road New Delhi-110016 Date: 05-07-2017

#### ORDER

Subject: Implementation of Indo-Italian Joint project entitled: "AstroSat: a new window on General Relativity" coordinated by Prof. Dipankar Bhattacharya, Inter-University Centre of Astronomy and Astrophysics (IUCAA), Pune with the Italian Partner Dr. Tomaso M.M. Belloni, Astronimico di Brera, Merate, Italy - regarding.

Sanction of the President is hereby accorded for incurring an expenditure not exceeding Rs. 10,80,000/- (Rupees Ten lakhs eighty thousand only) for implementation of the Indo-Italian Joint project entitled: "AstroSat: a new window on General Relativity" coordinated by Prof. Dipankar Bhattacharya, Inter-University Centre of Astronomy and Astrophysics (IUCAA), Pune in collaboration with Partner Dr. Tomaso M.M. Belloni, Astronimico di Brera, Merate, Italy for a total duration of three years from the date of issue of the sanction order. The detailed breakup of the grant for General as well as Capital Components are given below:-

General Component	:	Rs.10,80,000/-
Capital Component	• :	NIL

2. As per the terms and conditions, agreed by both side, under the project the sending side will bear the cost related to the International air travel, medical insurance and visa charges whereas the receiving side shall bear the cost of accommodation, hospitality and local travels of the visiting scientist. The break-up of approved expenditure is as indicated below :

A. Breakdown of expenditure on visits of Indian Scientist to Italy

Item of Expenditure	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3rd Year	Total
Budget head	1 short-term & 1 long term visit	1 short-term & 1 long term visit	1 short-term & 1 long term visit	6 visits
Return Air travel cost between place of work abroad and Indian host institutions inclusive of air port tax visa fee and medical insurance for 2		Rs. 1,80,000/-	Rs. 1,80,000/-	Rs. 5,40,000
visits in 3 years (To be procured by host Indian Institute for visiting scientist respecting following norms – (i) by shortest route (ii) economy excursion class and (iii) competitive fare by Air India as per GOI norms @ Rs. 90,000/- per ticket (Subject to actuals)				
Total	Rs. 1,80,000/-	Rs. 1,80,000/-	Rs. 1,80,000/-	Rs. 5,40,000

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B. Breakdown of expenditure on visits of Italian Scientists to India

Item of Expenditure	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3rd Year	Total 🥌
Budget head	1 short-term & 1 long term visit	1 short-term & 1 long term visit	1 short-term & 1 long term visit	6 visits
Per diem and local transport allowance for 2 visiting Italian scientists (STV) up to 10 days duration and 1 long term visit up to 30 days duration @ Rs. 2,500/- per day	.Rs. 1,00,000/-	Rs. 1,00,000/-	Rs. 1,00,000/-	Rs. 3,00,000/-
Accommodation in guest house/ subsidized accommodation up Rs. 2,000/- per day (subject to actual)	Rs. 80,000/-	Rs. 80,000/-	Rs. 80,000/-	Rs. 2,40,000/-
Total	Rs. 1,80,000/-	Rs. 1,80,000/-	Rs. 1,80,000/-	Rs. 5,40,000/-
Grand Total	Rs. 3,60,000/-	Rs. 3,60,000/-	Rs. 3,60,000/-	Rs. 10,80,000

3. Sanction of the President is hereby accorded for release of 1<sup>st</sup> instalment amounting of Rs. 3,60,000/- (Rupees Three lakhs sixty thousand only) to the Inter-University Centre of Astronomy and Astrophysics (IUCAA), Pune. The amount of grant will be drawn by the Drawing and Disbursing Officer, DST and disbursed to Inter-University Centre of Astronomy and Astrophysics (IUCAA), Pune. The bank details for electronic transfer of funds through RTGS are given below.-

Account Holders name/ designation	Inter-University Centre of Astronomy and Astrophysics (IUCAA), Pune
Name of Bank	Bank of Baroda IUCAA Extention counter, Pune University Campus, Pune-411007
Bank Account Number	98060100000188
IFSC Code	BARBOEXTPOO
E-Mail	dipankar@iucaa.in

Condition for placing of grant amount :

4. The institute will maintain separate audited account for the project and the amount of grant will be kept in a bank account earning interest. The interest earned should be reported to DST while submitting the (financial year wise) Statement of Expenditure/Utilization Certificate. The interest thus earned will be treated as a credit to the institute to be adjusted towards further instalment of the grant.

Conditions for submission of SE/UC and Progress report:

- 5. (i) The grantee organisation will furnish to the Department of Science & Technology, financial year wise Utilization Certificate (UC) in the proforma prescribed as per GFR 2017 and audited statement of expenditure (SE) along with up to date progress report at the end of each financial year duly reflecting the interest earned / accrued on the grants received under the project. This is also subject to the condition of submission of the final statement of expenditure, utilization certificate and project completion report within one year from the scheduled date of completion of the project.
  - (ii) While submitting Utilisation Certificate/Statement of Expenditure, the organisation has to ensure submission of supporting documentary evidences with regard to purchase of equipment/capital assets as per the provisions of GFR 2017. Subsequent release of grants under the project shall be considered only on receipt of the said documents.

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(iii) A transparent procurement procedure in line with the Provisions of General Financial Rules 2017 will be followed by the Institute/ Organisation under the appropriate rules of the grantee organisation while procuring capital assets sanctioned for the above mentioned project and a certificate to this effect will be submitted by the Grantee organisation immediately on receipt of the grant;

6. The grantee organisation will have to enter & upload the Utilization Certificate in the PFMS portal besides sending it in physical form to this Division. The subsequent/final instalment will be released only after confirmation of the acceptance of the UC by the Division and entry of previous Utilization Certificate in the PFMS.

7. In the event grant has been released under capital head through separate sanction order under the same project for purchase of equipment(s), separate SE/UC has to be furnished for the released Capital head grant.

#### Conditions of Assets (if any) :

8. DST reserves sole rights on the assets created out of grants. Assets acquired wholly or substantially out of government grants (except those declared as obsolete and unserviceable or condemned in accordance with the procedure laid down in GFR 2017), shall not be disposed of without obtaining the prior approval of DST.

#### Conditions for International Visits :

9. All project related visits to be undertaken by the Scientists from either side in connection with the implementation of the project shall require prior approval from this Department separately on a case to case basis before any expenditure is incurred in this regard.

10. As per MoF instructions, it has been decided that in all cases of air travel, both domestic and international, where the Government of India bears the cost of air passage, the officials concerned may travel only by Air India. For travel to stations not connected by Air India, the officials may travel by Air India to the hub/point closest to their eventual destination, beyond which they may utilize the services of another airline which should also preferable be an alliance partner of Air India.

#### Other Conditions:

11. The account of the grantee organisation shall be open to inspection by the sanctioning authority and audit (both by C&AG of India and Internal Audit by the Principal Accounts Office of the DST), whenever the organisation is called upon to do so, as laid down under Rule 236(1) of General Financial Rules 2017.

12. Due acknowledgement of technical support / financial assistance resulting from this project grant should mandatorily be highlighted by the grantee organisation in bold letters in all publications / media releases as well as in the opening paragraphs of their Annual Reports during and after the completion of the project.

13. Failure to comply with the terms and conditions of the Bond will entail full refund with interest in terms of Rule 231 (2) of GFR 2017.

14. The expenditure involved is debitable to Demand No.84, Department of Science & Technology for the year 2017-18:

3425	:	Other Scientific Research (Major Head)
60	:	Others
6J.798	:	International Cooperation (Minor Head)
14	5	S & T Cooperation with Other countries
14.00.31		Grants-in-aid General for the year 2017-18 (Plan)
		(Previous : ICD-3425.60.798.12.00.31)

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Ramniranjan Jhunjhunwala College, Ghatkopar (W), Munibai-400086. 15. This sanction order being 1<sup>st</sup> instalment for implementation of this project, no SE/UC isdue from the grantee institution against this project.

16. This issues with the concurrence of IFD vide their concurrence Dy. No. C/1226/IFD 2017-18 dated 22-06-17.

17. As per Rule 234 of GFR 2017, this sanction has been entered at S. No. I.S.L. in the register of grants maintained in the Division.

(Rajiv Kumar) Scientist-E

To,

The Pay & Accounts Officer, Department of Science & Technology, New Delhi-110016

Copy to:

- 1. Office of the Principal Director of Audit, AGCR Bldg., IP Estate, New Delhi-110002
- 2. Cash Section (3 copies), DST
- 3. I.F. Division/Accounts Section, DST
- 4. Prof. Dipankar Bhattacharya, Inter-University Centre of Astronomy and Astrophysics (IUCAA), Pune-411007
- 5. Director, Inter-University Centre of Astronomy and Astrophysics (IUCAA), Pune-411007
- 6. Accounts officer, Inter-University Centre of Astronomy and Astrophysics (IUCAA), Pune-411007
- 7. Sanction Folder
- 8. Project File.

(Rajiv Kumar) Scientist-E

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Principal

Ramniranjan Jhuothanwala College, Ghatkopar (W), Aumbai-400086.