

International School on Fundamental Crystallography and Workshop on Rietveld Refinement Analysis (ISFC-2026)

23rd to 28th February 2026

Venue: Department of Physics & Astronomy, National Institute of Technology Rourkela, Sundargarh, Odisha-769008, INDIA

About the School/Workshop:

The main focus of the event is the understanding of the fundamentals of crystallography, and implementation of Rietveld refinement analysis of powder diffraction data of functional materials like ferroics and multiferroics. The first three and half days would cover fundamental crystallographic topics starting from crystallographic symmetry and its application to two- and three-dimensional crystallographic point and space groups, symmetry relations between space groups including group-subgroup and group-super group relationships, crystal-structure descriptions and comparison. The last two and half days would be devoted to discussions on reciprocal-space construction and diffraction, X-ray powder diffraction, theoretical basis as well as strategy of Rietveld refinement analysis. The lecture sessions will be accompanied by hands-on practical sessions on space groups descriptions in Volume A of International Tables for Crystallography and online training for determination of subgroups of space groups and their applications in crystal-structure relations and comparisons using Bilbao Crystallographic Server (freely available at <https://www.cryst.ehu.es/>). The workshop on Rietveld refinement analysis is also based on intensive hands-on sessions using the computer programs of the Full Prof Suite. The Full prof software will be used as the platform for Rietveld refinement, which is freely available at (<https://www.ill.eu/sites/fullprof/>).

Speakers and Tutors:

- Prof. Mois Ilia Aroyo (MIA), Universidad del País Vasco, Bilbao, Spain.
- Prof. Massimo Nespolo (MN), Universite de Lorraine, Nancy, France.
- Prof. Juan Rodríguez-Carvajal, (JRC) Institut Laue-Langevin, Grenoble, France.
- Dr. Claire V. Colin (CVC), Institut Néel - CNRS & UGA, Grenoble, France.
- Dr. Gemma de la Flor Martín (GFM), Karlsruhe Institute of Technology, Germany.
- Dr. Dillip K. Pradhan (DKP), National Institute of Technology Rourkela, Odisha, India.
- Dr. Ranjana R. Das (RRD), Government Autonomous College, Rourkela, Odisha, India
- Dr. Anupam Mishra (AM), National Institute of Technology Rourkela, Odisha, India.
- Dr. Anusree V. K. (AVK), R Sankar Memorial SNDP Yogam Arts & Science College, Koyilandy, Kerala, India

Organizers:

- IUCr Commission on Mathematical and Theoretical Crystallography (MaThCryst).
- Department of Physics & Astronomy, NIT Rourkela, Odisha, India.

International Program Committee:

- Prof. Mois Iliá Aroyo, Universidad del País Vasco, Bilbao, Spain.
- Prof. Massimo Nespolo, Université de Lorraine, Nancy, France.
- Prof. Gregory McColm, University of South Florida, USA.
- Prof. Juan Rodríguez-Carvajal, (JRC) Institut Laue-Langevin, Grenoble, France.
- Prof. Dhananjai Pandey, Indian Institute of Technology BHU, India.
- Dr. Claire V. Colin (CVC), Institut Néel - CNRS & UGA, Grenoble, France.
- Dr. Gemma de la Flor Martín, Karlsruhe Institute of Technology, Germany.
- Prof. R. N. P. Choudhary, ITER, SOA University, Bhubaneswar, Odisha, India.
- Prof. Rajeev Ranjan Indian Institute of Science (IISc.), Bangalore, India.
- Dr. Rajesh Prasad, Indian Institute of Technology (IIT), Delhi India.

Local Organizing Committee:

Prof. K. Umamaheshwar Rao, Director, NIT Rourkela, *Patron*.

Dr. J. P. Kar, HOD, Department of Physics & Astronomy, NIT Rourkela, *Chairman*.

Dr. Dillip K. Pradhan, Department of Physics & Astronomy, NIT Rourkela, *Coordinator*

Dr. Anupam Mishra, Department of Ceramic Engineering, NIT Rourkela, *Co-coordinator*

Dr. P. Mahanandia, Department of Physics & Astronomy, NIT Rourkela, *Secretary*

Dr. Soudamini Sahoo, Department of Physics & Astronomy, NIT Rourkela, *Jt. Secretary*

Dr. Gopi Nath Daptary, Department of Physics & Astronomy, NIT Rourkela, *Treasurer*.

Dr. B. Ganguli, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. S. S. Jena, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. P. Kumar, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. D. K. Bisoyi, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. P. N. Vishwakarma, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. A. K. Singh, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. S. N. Dash, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. A. C. Pradhan, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. S. Mishra, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. S. Datta, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. S. C. Mahapatra, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. Mithun Biswas, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. Indrani Banerjee, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. Bharat Kumar, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. Abhay Pratap Yadav, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. Susanta Kumar Bisoi, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. Nilay Maji, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. Shraddha Sharma, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Dr. Ranjana R. Das, Government Autonomous College, Rourkela, India *Member*.

Mr. Jayesh Samal, Department of Physics & Astronomy, NIT Rourkela, *Member*.

Mr. Rajesh Beuria, Manager, Guest House, NIT Rourkela, *Member*.

Target Participants:

The school is intended primarily for Ph.D. scholars, Postdoctoral researchers, young faculty, and scientists working in R&D sectors with a strong interest in the fundamental crystallography

and its use for Rietveld refinement analysis of ferroelectric and multiferroic systems. Applications are invited from different parts of the globe to participate in the crystallography school. We are expecting nearly 60+ young crystallographers for this workshop. The aim of the school is to acquire both practical skills and theoretical knowledge in crystallography. Therefore, some elementary knowledge in vector algebra, matrix calculus, fundamental crystallography and solid state physics would be highly desirable prerequisites for a clear understanding of advanced topics planned for the school. Prospective participants are encouraged to participate in poster presentation.

Application Procedure:

The application form duly filled by the participants, and after forwarded through the current research adviser/supervisor/employer should be sent through e-mail (scanned copy) to the workshop coordinator. The application must be accompanied by a letter of support from the current research adviser/supervisor/employer. The letter of support should mention the potential benefits of attending the workshop and the sources of funding available to the applicant to participate in this workshop.

Workshop Home Page: <http://www.nitrkl.ac.in> → Research → Workshop

For updates, and the application form please visit the website.

Registration Fee:

Industry professionals - US\$ 200 (INR 16, 000) (Before 1st December, 2025 and US\$ 250 (INR 20, 000)thereafter
Faculty/Scientist: - US\$ 200 (INR 16, 000) (Before 1st December, 2025, and US\$ 250 (INR 20, 000)thereafter
Research students - US\$ 100 (INR 8000) (Before 1st December, 2025, 2025 and US\$ 150 (INR 12, 000)thereafter

*Registration fee includes Conference kit, Food (Breakfast, Lunch, and Dinner) during the workshop days. The registration fee is non-refundable.

** Attempt will be made for partial waiver of accommodation fees for selected research scholars subject to availability of funds from sponsoring agencies.

Bursary Award:

Travel and housing scholarships for students and young scientists (Ph. D. scholars, Postdoctoral researchers and recent graduates who have not yet secured permanent employment), preferably below the age of 30 years but in no case above 35 years, will be eligible to apply for bursary awards from IUCr to support their attendance at the school. In order to be eligible for the IUCr bursary awards, the applicant has to register, if not already registered, in the [World Database of Crystallographers](#) (WDC - registration is free of charge).

Accommodation:

Limited availability of campus accommodation on a twin sharing basis will be arranged in the institute guest houses, subject to availability/advance payment. We advise participants to stay on campus to ensure timely attendance in the workshop.

Room tariff of Institute Guest House†:

South Block	
Single occupancy per day.	INR 1200.00 including GST
Double occupancy for two person per day.	INR 1550.00 including GST
North Block	
Single occupancy per day.	INR 750.00 including GST
Double occupancy for two person per day.	INR 1000.00 including GST

†Tariffs are subject to change without prior notice. Kindly visit the website for further details; <https://guesthouse.nitrkl.ac.in/Users/HomePage.aspx>.

For participants willing to stay in hotels, many budget hotels are available in nearby vicinity. They can make their own arrangement directly by contacting the respective hotels. The participants also have to make their own arrangements to reach the workshop venue from hotels. Some affordable hotels in Rourkela are:

- Hotel Mayfair (Panposh Road, Rourkela) (<https://www.mayfairhotels.com/rourkela/>)
- Deepti Courtyard, (Ring Road, Rourkela) (<https://www.deepticourtyard.com/>)
- Mayfair World Cup Village (<https://www.mayfairhotels.com/world-cup-village-rourkela/>)
- The Central Park Boutique Hotel (<https://www.thecentralpark.in/>)
- Hotel Brindaban (Bisra Road, Rourkela) (www.hotelbrindaban.com)

Important Dates:

Last date for receiving applications: 1st November, 2025

Selection of applicants: 15th November, 2025

Early bird registration: 15th December, 2025

Request for campus accommodation (latest by): 1st January, 2026

Contact:

Dr. Dillip K. Pradhan,
Coordinator, (ISFC-2026)
Department of Physics & Astronomy,
National Institute of Technology Rourkela
Rourkela, Sundargarh, Odisha-769008, INDIA,
Phone: +91-661-2462729, +91- 9437170561 (Cell Phone),
Email: nitrcrystalschool@gmail.com, dillippradhan@nitrkl.ac.in

About Us:

The National Institute of Technology (NIT) Rourkela, was founded as a Regional Engineering College in 1961. NIT, Rourkela is a prestigious Institute with a reputation for excellence at both undergraduate and postgraduate levels. Since its inception, it has been fostering the spirit of national integration among the students, a close interaction with industry and a strong emphasis on both basic and applied research. Department of Physics & Astronomy, formerly Department of Physics (established in 1961), was rechristened in 2013, has the well-earned reputation of being one of the best departments for imparting graduation and post-graduation levels courses as well as M. Tech. and Ph. D. programmes. At present, various research activities of this department are conducted in the areas of Ferroelectrics & Dielectrics, Multiferroics, Low Temperature Physics, Natural & Synthetic Polymers, Soft Condensed Matter, Semiconductors, Nanotubes & Graphene, Superconductivity, Magnetic Materials, Theoretical Condensed Matter Physics, Theoretical High Energy Physics, Quantum Optics and Astronomy & Astrophysics etc.

Statement on Gender Balance at the ISFCWRA-2026 school

The ISFC-2026 school Organizing Committee fully supports and promotes gender equality in accordance with the IUCr policy.

We ensure gender equality in our committees (including the Organizing Committee itself), among our lecturers and participants and paid special attention to the gender balance in evaluating bursary applications.

Further information can be found on the website of IUCR's Gender Equity and Diversity Committee (GEDC). This page contains a code of conduct, a GEDC conference speaker statement and a toolkit for conference organisers.

Scientific Freedom Policy Statement

The Organizing Committee of ISFC-2026 school has observed the basic policy of non-discrimination and affirmed the right and freedom of scientists to associate in international scientific activity without regard to such factors as ethnic origin, religion, citizenship, language, political stance, gender, sex or age, in accordance with the Statutes of the International Council for Science. At ISFC-2026 school no barriers existed which would have prevented the participation of bona fide scientists.

Diversity, Equality and Inclusion Statement

We welcome all crystallographers and scientists working in related fields, regardless of their ethnic origin, race, citizenship, language, political views, gender, sex, sexual preferences, physical disabilities and age. We strive to create a culture of diversity, equality and inclusion.