Brief Report on

The 13th International Conference on Quasicrystals

(ICQ13)

18-23 September 2016, Kathmandu, Nepal

Dr Hem Raj Sharma (the University of Liverpool, UK)

Prof An Pang Tsai, Tohoku University, Japan

Conference Chair

31st January 2017

The 13th International Conference on Quasicrystals (ICQ13) was held in Kathmandu, Nepal, from 18th to 23rd September 2016. This episode of a series of conferences on quasicrystals followed twelve previous successful meetings. The first event, the ''International Workshop on Aperiodic Crystals'', was held in Les Houches, France in 1986, which was followed by the ''International Workshop on Quasicrystals'' in Beijing, China in 1987 and the ''International Meeting on Quasicrystals'' in Vista-Hermosa, Mexico in 1989. Thereafter, a series of "International Conference on Quasicrystals" took place respectively in St. Louis, Missouri, USA in 1992 (ICQ4), Avignon, France in 1995 (ICQ5), Tokyo, Japan in 1997 (ICQ6), Stuttgart, Germany in 1999 (ICQ7), Bangalore, India in 2002 (ICQ8), Ames, Iowa, USA in 2005 (ICQ9), Zürich, Switzerland in 2008 (ICQ10), Sapporo, Japan in 2011 (ICQ11) and Cracow, Poland in 2013 (ICQ12).

The conference covered a wide range of topics on quasicrystals: formation, growth, and phase stability; structure and modeling; mathematics of quasiperiodic and aperiodic structures; transport, mechanical and magnetic properties; and finally, surfaces and overlayer structures. In addition, other aspects of material science such as metamaterials, polymer science, metallic glasses, and metallic alloys were discussed. The conference also reviewed the state-of -art of quasicrystal research and its future direction.

ICQ13 was attended by 113 participants (including 15 accompanying persons) from 22 countries, including 26 PhD or master students. There were 13 invited talks (including a public lecture by the 2011 Nobel Laureate in Chemistry, Prof. Dan Shechtman), 3 tutorial lectures, 50 contributed talks and 36 poster presentations. The conference was truly interdisciplinary - comprising of theoretical and experimental physicists, chemists, material scientists, and mathematicians.

The proceedings of the conference are published as open access in the Institute of Physics Conference Series Volume 809 (2017). The papers have been reviewed in the regular refereeing process. Among 35 proceedings received, 30 have been accepted for the publication.

The conference itself was held at the Dhulikhel Lodge Resort. The public lecture was organised at the central campus of Trubhuvan University in Kirtipur, hosted jointly by the

Nepal Physical Society and the Central Department of Physics, while the tutorial lectures were held at Kathmandu University. These two events were open to local researchers and students. A special ceremony was organised for the inauguration of ICQ13, which was addressed and attended by the vice-chancellors of Tribhuvan University, Kathmandu University, Nepal Academy of Science and Technology (NAST), and representatives of various professional organisations, including the Nepal Government.

The Jean-Marie Dubois Award for Excellence in Quasicrystals (2016) was presented to Dr. Marek Mihalkovič at ICQ13, for the theoretical work that has enabled and demonstrated the simulation of thermodynamic and dynamic properties of quasicrystals - based on realistic atomic-scale models and energetics. The Jean-Marie Dubois Award was established to recognize important, sustained research on any aspect of quasicrystals in the last 10-year period preceding the award. The prizes for best student presentation were awarded to Ito Natsu from Toyo University of Science, Japan for her paper titled ‘‘Synthesis and magnetic properties of the Au-Al-Yb approximant’’ and Nicolas Macé from Université Paris-Saclay, France for his paper titled ‘‘Gap structure and topological indices on the Fibonacci quasicrystal’’.

We gratefully acknowledge the generous financial support for ICQ13 from the International Union of Crystallography (IUCr), the European Integrated Center for the Development of New Metallic Alloys and Compounds (C-MAC), the International Centre for Diffraction Data (ICDD), Rigaku Oxford Diffraction, Embassy of Israel Kathmandu, Deutsch-Nepalische Gesellschaft, TBI Group, Phul Kumari Mahato Memorial Trust, Nepal Science Foundation Trust, Holy-Cow, officials of Non-Resident Nepali Association (NRNA) and NRNA-Australia.

We would like to express our sincere thanks to the members of the Organising Committee, Program Committee and International Advisory Board, invited speakers, session chairs, editorial board members and reviewers of the conference proceedings and all others for their support and involvement in the conference.

Last, but not least, we would like to thank the Local Organisation Committee of ICQ13 - chaired by Prof. Narayan Prasad Adhikari - for the efforts that made the conference so

successful. We would also like to express our gratitude for the support we received from the University of Liverpool, UK, Tohoku University, Japan and Tribhuvan University, Nepal.

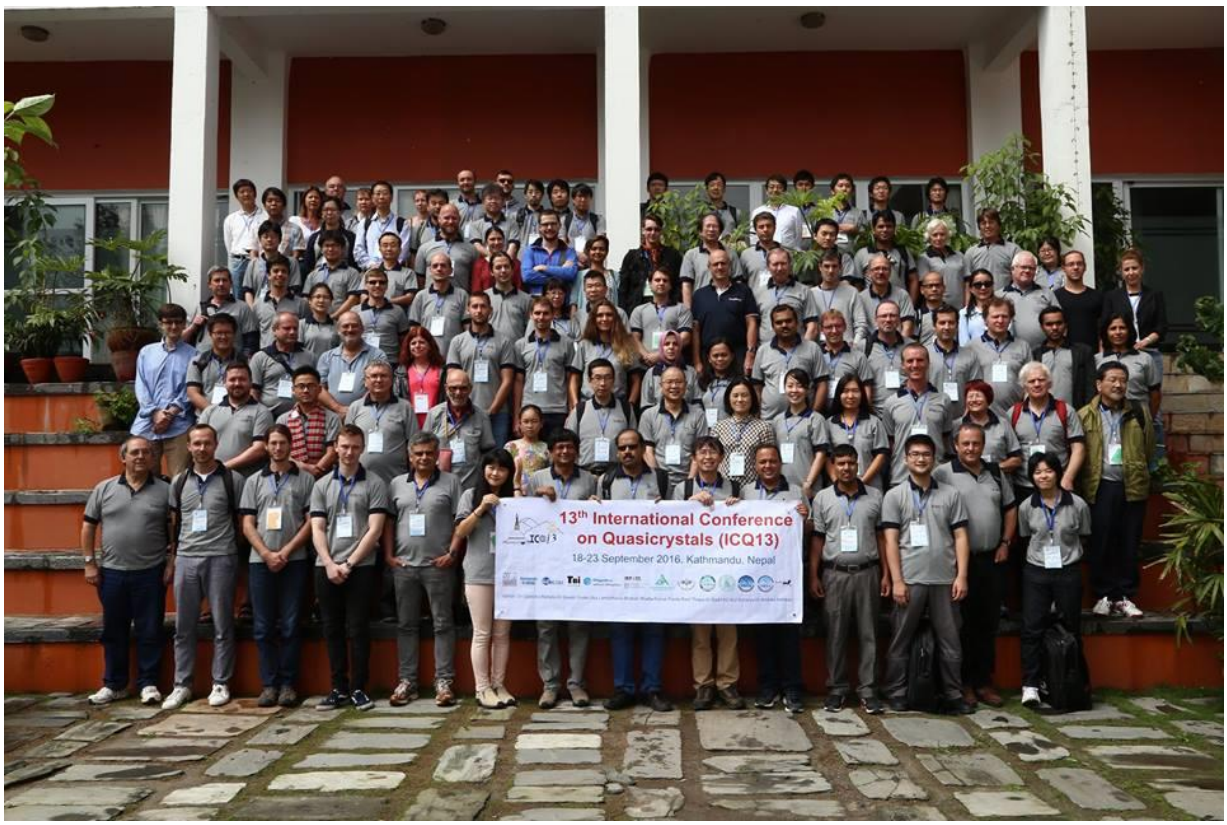
We hope that the conference helped to promote the struggling tourism sector of Nepal, after the country was hit by devastating earthquakes in 2015. We thank the Nepal Tourism Board, Atithi Devo Bhava, Chandragiri Cable Car and Cultural Bands to help ICQ13 participants explore the culture, history and natural beauty of the Himalayan country Nepal during their stay.

The 14th International Conference on Quasicrystals (ICQ14) will be held on 26 – 31 May 2019 in Bled, Slovenia.

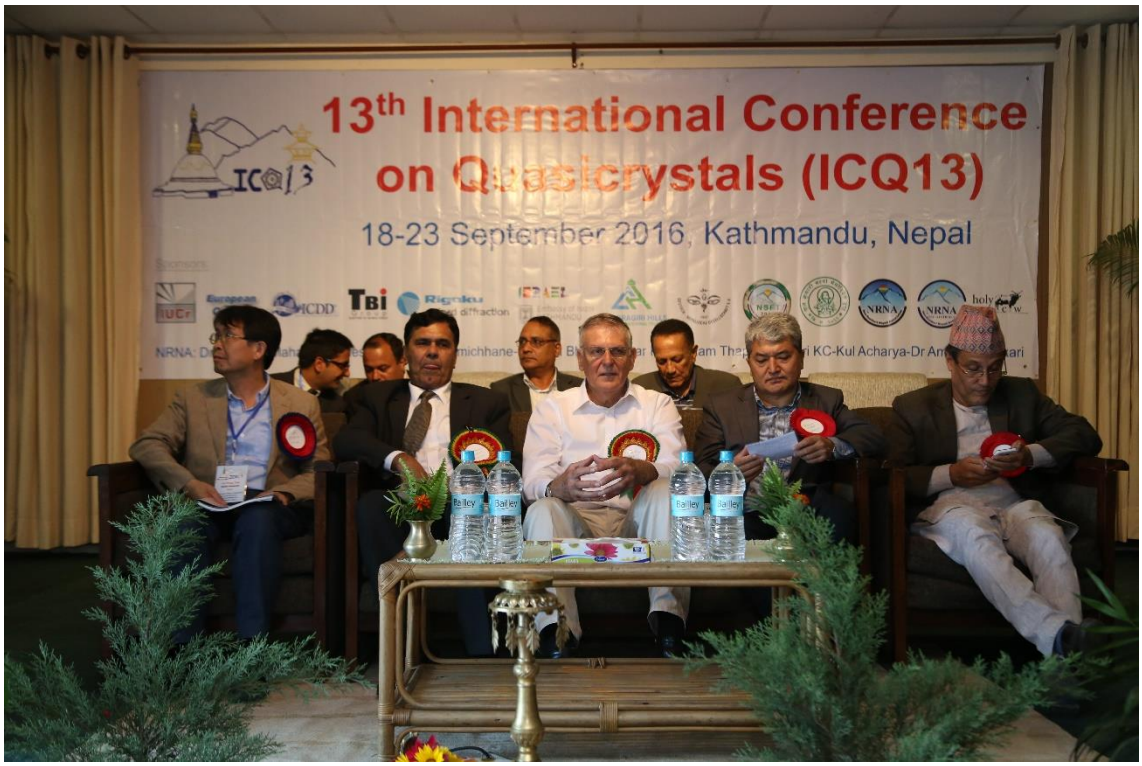
Thank you.

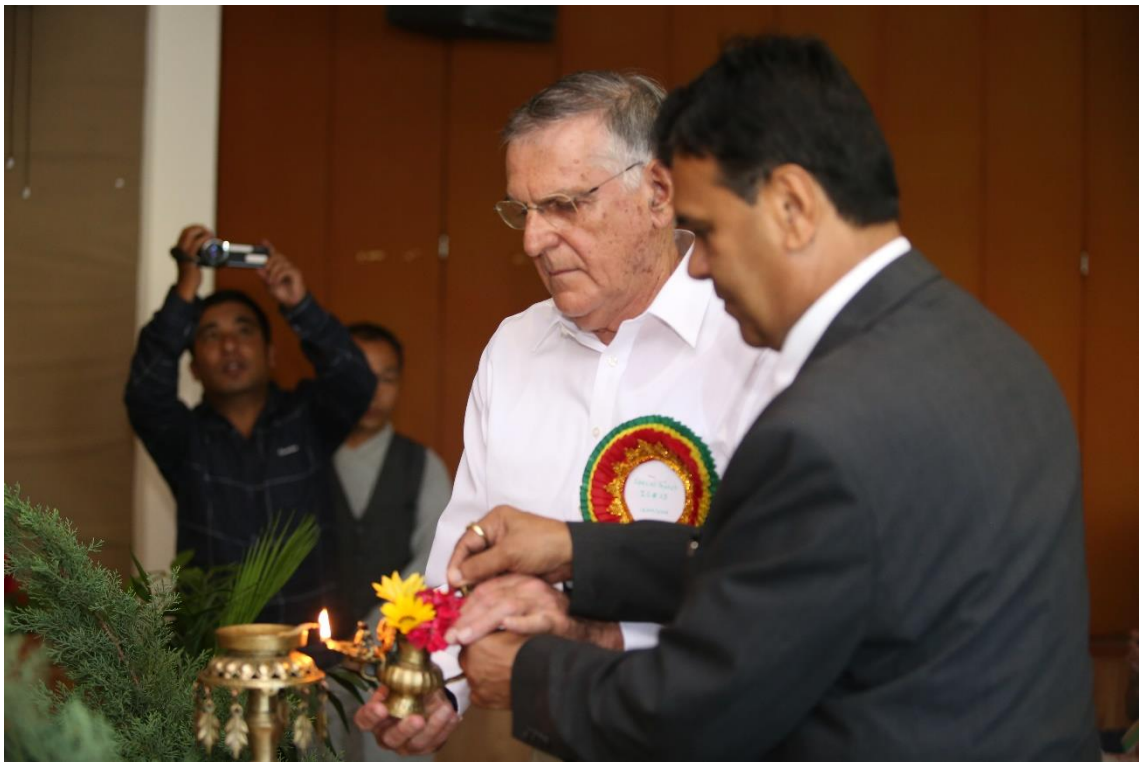
Conference Chairs,
Dr Hem Raj Sharma (the University of Liverpool, UK)
Prof An Pang Tsai, Tohoku University, Japan
31st January 2017

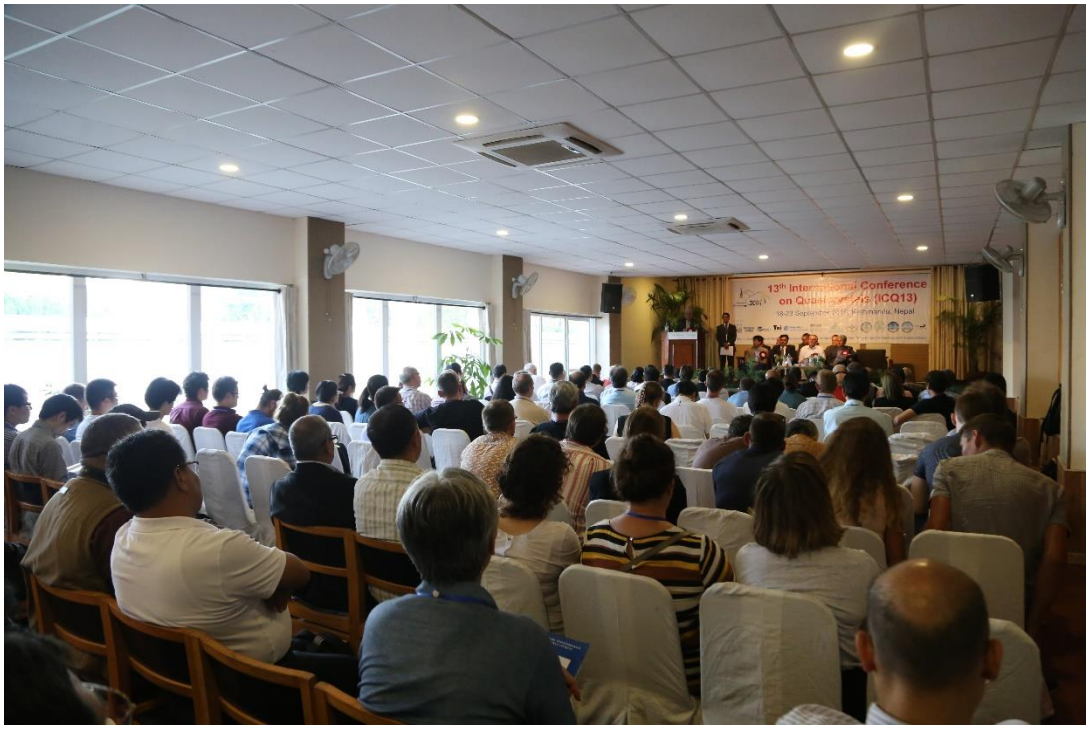
Conference Photo



Opening Ceremony







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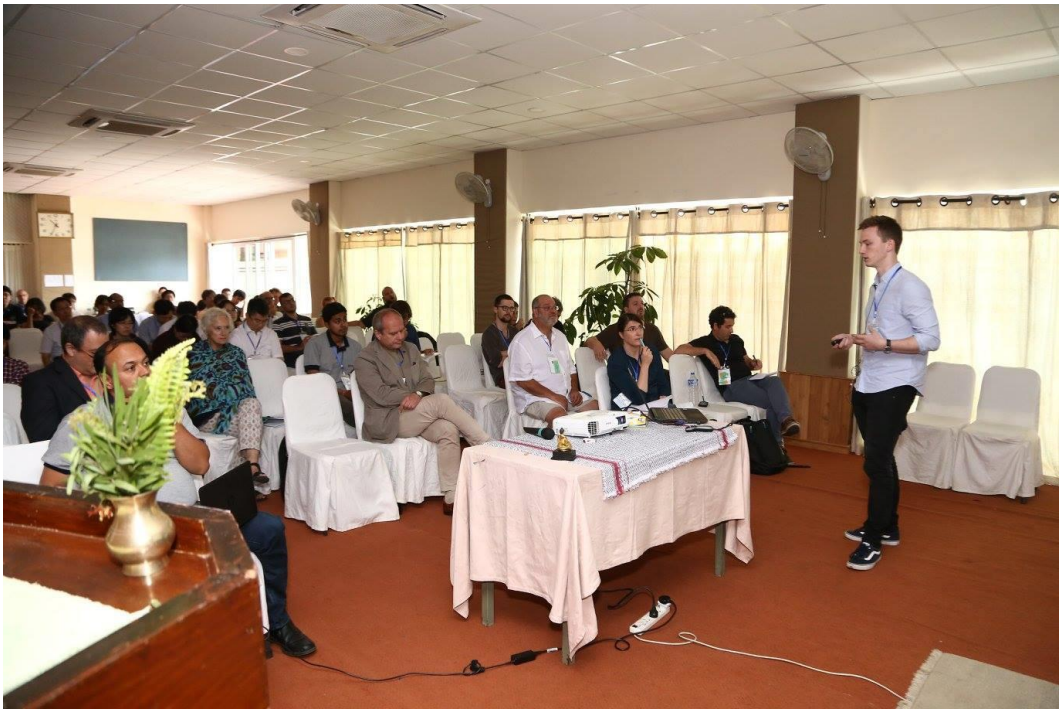

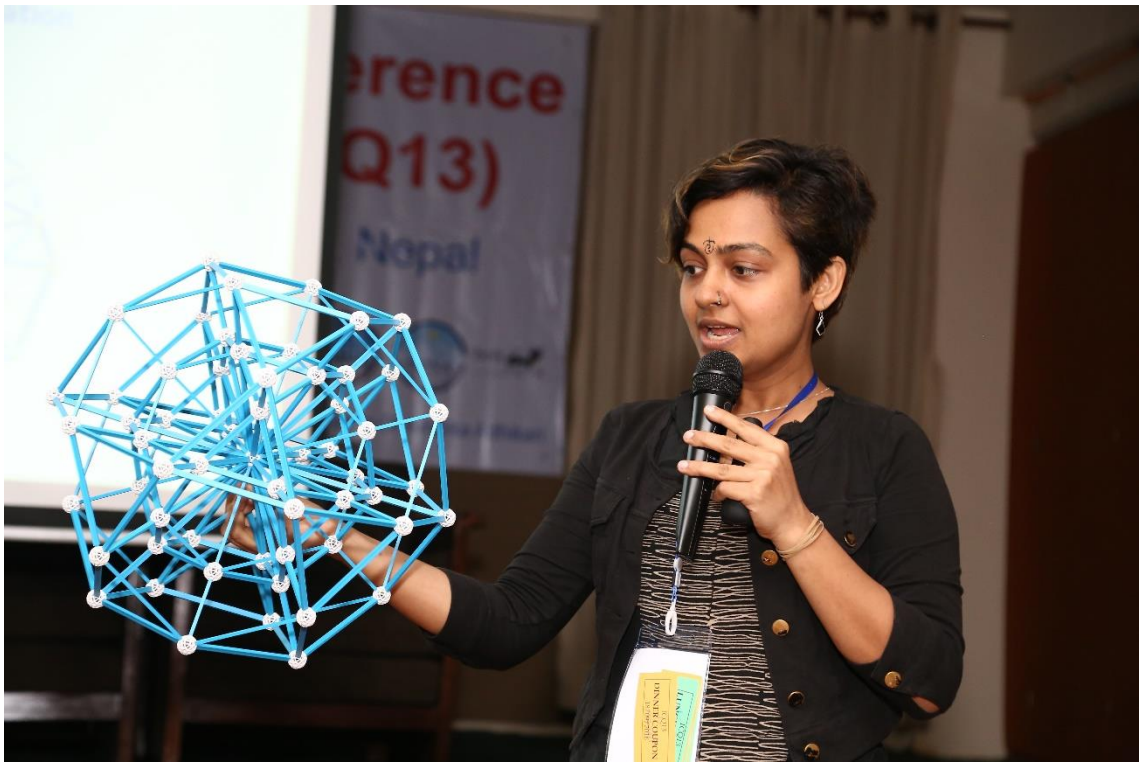
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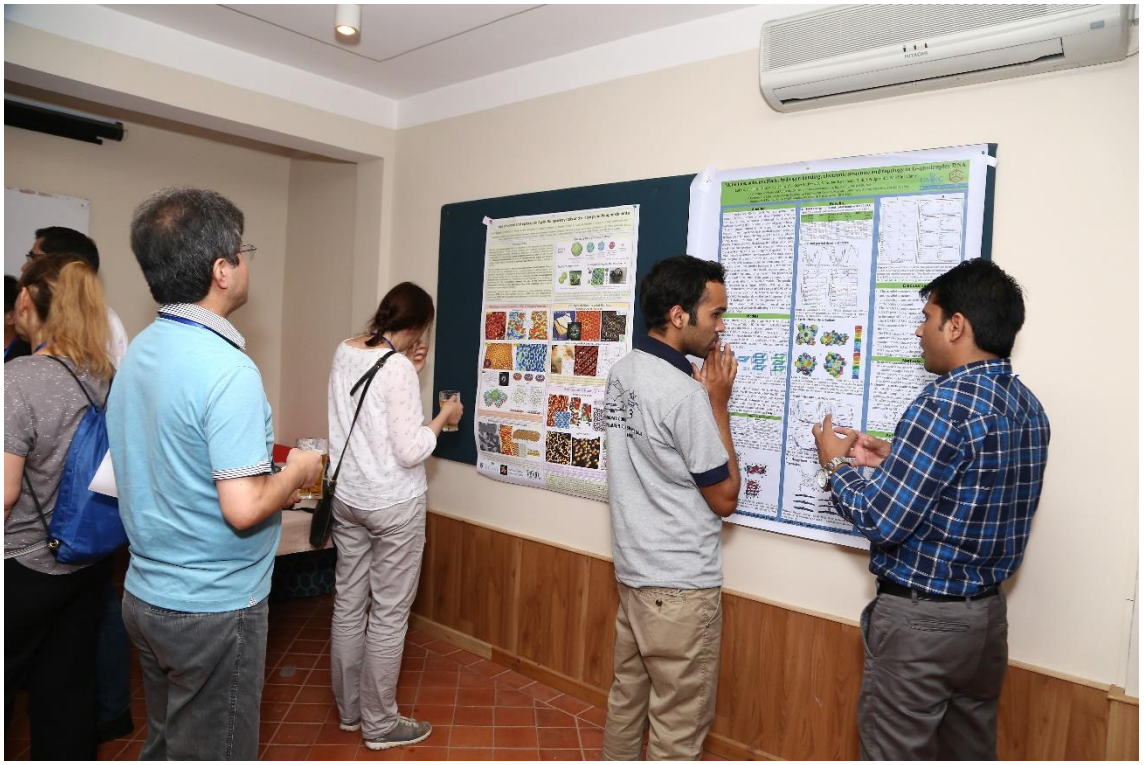
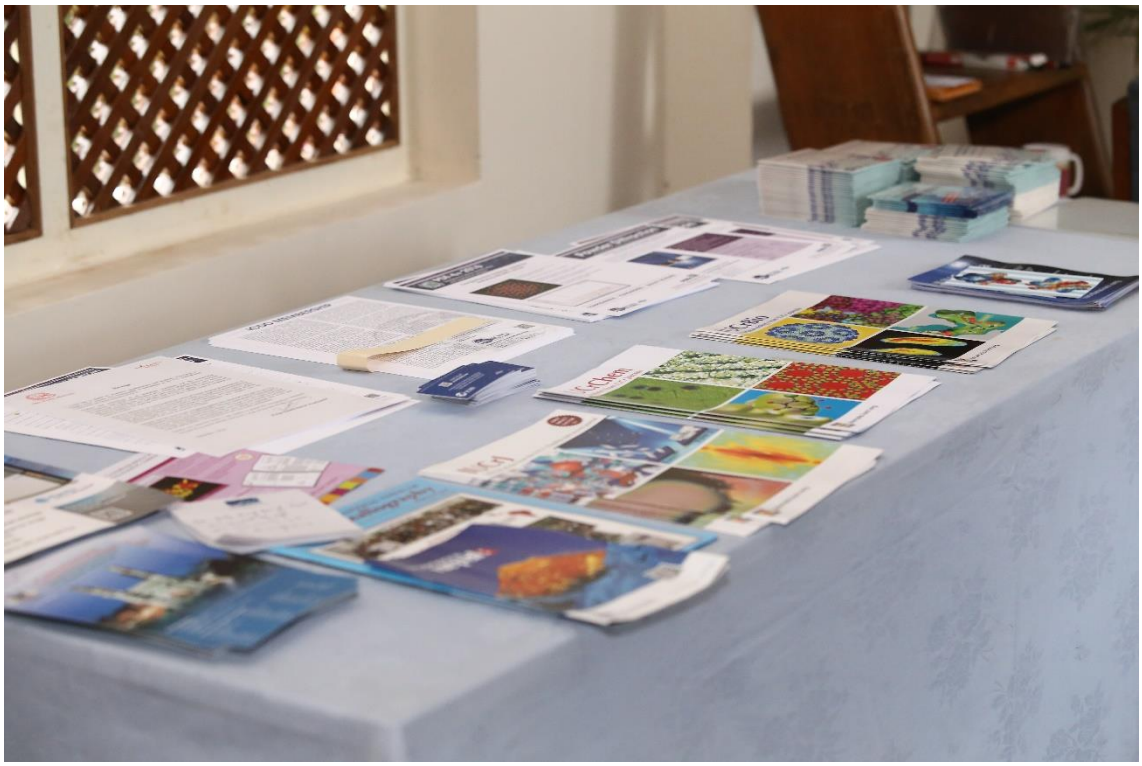


Meeting with the President of Nepal

Exhibition by Sponsors



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18-23 September 2016, Kathmandu, Nepal

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Contents of the Conference Proceeding

Coates	Preparation dependent surface structure of NiAl(100)	12016
Sharma	Medium energy ion scattering (MEIS) study from the five-fold surface of icosahedral Ag-In-Yb quasicrystal	12017
Nozawa	Adsorption structure of Bi on the fivefold surface of i-Ag-In-Yb quasicrystal	12018
Trebin	Phason dynamics in decagonal quasicrystals	12019
Laissardière	Sub-diffusive electronic states in octagonal tiling	12020
Jagannathan	Screening of a magnetic impurity in a quasicrystal	12021
Shinzaki	Cluster Size Effects on Electronic Reconstruction in Quasiperiodic System	12022
Macé	Gap structure of 1D cut and project Hamiltonians.	12023
Ben-Abraham	Brick tiling	12024
Flom	Color coding for the brick tiling	12025
Baake	Diffraction of a binary non-Pisot inflation tiling	12026
Chan	Substitution-based sequences with absolutely continuous diffraction	12027
Ajlouni	An ancient rule for constructing dodecagonal quasiperiodic patterns	12028
Loquias	Color groups of colorings of N-planar modules	12029
Sekiyama	Electron Localization and Conduction Mechanism of Icosahedral Quasicrystal Al-Pd-Ru	12030