National Conference on Mathematics and Its Applications



Organized by



Nepal Mathematical Society (NMS)

In collaboration with

Central Department of Mathematics, Tribhuvan University, Nepal

Department of Mathematics, School of Science, Kathmandu University

Nepal Sanskrit University

Purbanchal University

Mahendra Ratna Multiple Campus, Ilam









Jestha 28 - 30, 2079 (June 11-13, 2022)

Venue: Mahendra Ratna Multiple Campus, Ilam, Province-1, Nepal

Introduction

Mathematics plays crucial role in society with its tremendous applications in various disciplines, from natural to social sciences. The conference intends to bring together faculties, students and researchers from pure and applied mathematics and from a variety of many other disciplines, where mathematics finds its numerous applications. The primary objective of the conference is to offer mathematicians, researchers, and students around the nation and also from abroad a common platform to interact with each other, to share their knowledge and experiences as well as to exchange their innovative ideas, views and discuss the topics of mutual interests in the challenging and widely applied area of mathematical sciences. The conference also offers the participants an opportunity to be familiar with the contemporary developments and recent trends in the subject and acquaint the young participants with the research and other mathematical activities. The conference in physical presence brings the participants closer to each other, thereby bringing the interactions livelier than the online mode. The one-day workshop will be focused on the contents, pedagogy and the project based learning, from which the local mathematics teachers will get benefit out of it.

ILAM (Nepali: इलाम) is one of the beautiful hilly regions of Nepal that lies in the Mahabharata Hilly range of Eastern Nepal (Province-1). Being the largest producer region for Nepali tea, its tea farms comprise a major tourist attraction and are also famous for their natural scenery and landscapes as well as their diverse agricultural economy which specializes in horticultural crop production. Tea production in Ilam started as early as 1863 and many local people are getting employment from this. Sunrise and sunset views from Antu Dada (a famous hill), the beautiful Mai Pokhari (a local pond) with its religious value, popular and beautiful hilly towns Kanyam and Fikkal, to name a few, are famous tourist destinations that make Ilam a beautiful place to visit.

Ilam Bazaar (the headquarter) is located about 700 km (430 miles) east of Kathmandu. Regular bus and other public vehicle services are available from Kathmandu and also from other major cities of Nepal. From Kathmandu, it takes about 12 hours to Ilam by bus. There is *Phalgunananda Sukilumba* Airport, 7 Km far from the headquarter of Ilam. For more regular service from Kathmandu, people rely on the *Chandragadhi* (*Bhadrapur*) Airport, which is about 86 Km far from Ilam. Daily public vehicles are available from *Taplejung*, *Phidim*, *Birtamod*, *Chandragadhi*, *Kakarbhitta*, *Pashupatinagar*, *Damak*, *Itahari*, *Siliguri* (West Bengal, India), and from other nearby cities.

Ilam has many educational institutions. The major university campus of Ilam is Mahendra Ratna Multiple Campus, the first Quality Assurance and Accreditation (QAA) certified and autonomous constituent Campus of Tribhuvan University, Nepal. Programs are being conducted in Science, Humanities and Social Sciences, Education, and Management with undergraduate and postgraduate programs in various subjects including the bachelor's degree program in Science in Horticulture.

Nepal Mathematical Society (NMS) [www.nms.org.np], a non-profit organization was established in 1979 in Nepal with the purpose to create a network of mathematicians throughout Nepal and abroad, for promoting mathematical research and education. NMS also promotes professional ethics, creates opportunities for mathematicians, and advocates for their welfare. It has been conducting talk series, workshop series and conferences regularly. NMS has affiliations with various national and international networks such as American Mathematical Society (AMS), International Mathematical Union (IMU), SEAMS, Silkroad Mathematics Center and The Indian Mathematics Consortium (TIMC). Since 2018, it has been regularly publishing a peer reviewed journal— Journal of Nepal Mathematical Society (JNMS) biannually.

Central Department of Mathematics (CDM), Tribhuvan University (TU)

[www.cdmathtu.edu.np], the oldest department in the history of science education at Tribhuvan University (TU) in Nepal, was established in September 20, 1959. CDM mainly conducts graduate (MSc) and post-graduate (MPhil and PhD) programs and engages itself in academics and research activities.

Kathmandu University (KU) [www.ku.edu.np], established by an Act of Parliament in December 1991, is an autonomous, not-for-profit, non-government institution dedicated to maintaining high standards of academic excellence. At present, KU offers various undergraduate, graduate, and postgraduate programs in science, engineering, medicine, management, education, arts, pharmacy, environment, music, human & natural resources, law, information technology, and biotechnology. KU has well-strength mathematics faculties almost all with PhD's, and the faculties are dedicated to various research activities. MPhil and PhD in Mathematics at KU are well-established programs. With the objective for computational knowledge in mathematics, which is now globally getting popularity, the Department of Mathematics under the School of Science has conducted undergraduate program in Computational Mathematics since 2017.

Nepal Sanskrit University (**NSU**) [www.nsu.edu.np] aims at producing qualified scholars to safeguard national culture and produce competent manpower in Ayurveda, Jyotisha, Yogic Sciences, and naturopathy along with Sanskrit Scholars to meet the national and international needs. Research Center a separate wing, is to carry out research works, which runs PhD programs along with mini research in various disciplines of Sanskrit related subjects including mathematical sciences and Vedic mathematics. NSU runs various classes from Shastri level to Acharya level of Sanskrit literature with some modern subjects including mathematics and statistics. There are some subjects like Siddhanta Jyotisham which is full of geometry and mathematics.

Purbanchal University (**PU**), a public university established in Morang 1993 by the Government of Nepal with the objectives of preserving, refining, inventing, adopting, extending and transmitting knowledge in an environment that fosters free enquiry and open scholarly debate, leading to all-encompassing development of the rural people and their economies and environment. Purbanchal University conducts its academic programs in Management, Engineering, Population and Development Studies, Medical and Allied Sciences, Humanities, Law and Science and Technology through its five constituent campuses as well as more than 123 affiliate colleges.

Scope

The participants of NCMA-2022 will get an opportunity to be familiar with basic concepts and developments of classical as well as modern mathematics through conference papers. The conference and workshop will motivate the local and other participants/ faculties in their teaching and research. They can get a platform to interact with each other, share knowledge, exchange views and discuss the topics of these thrust areas of mathematics. This helps in popularizing mathematics in both local and national scale. At the same time, participants can enjoy the pleasant summer in the beautiful touristic hill.

Objectives

This conference aims at

- 1) training a group of young scientists/ faculties in the above mentioned areas
- 2) acquainting the participants in the recent developments in these areas
- 3) bringing several experts together to interact
- 4) promoting research interest and teaching pedagogy, especially for the local participants
- 5) active participation of the young researchers and faculties nationwide, especially from Province 1 and nearby regions.

Relevancy/ Justification of The Program:

Participants will get research exposure and be acquainted with the recent trends and activities in the development of mathematical sciences including the history of mathematics. Researchers will get opportunity to disseminate their research outcomes in physical presence of large number of audiences. The one-day workshop will be beneficial for the local high school and university teachers in some contents, pedagogy and project based learning.

The methodology used for conducting the program:

In the conference, for conducting the program, there will be oral and poster presentations by the speakers and researchers. The one-day workshop before the conference will be facilitated by the subject experts from national and local levels.

Call for Papers and Abstracts

The conference will try to cover all important aspects of the mathematical sciences and their applications. Papers related to research, expository articles to introduce recent mathematical advancements, and applications of mathematics are invited. Specific areas include analysis, topology, mathematics education, statistics, big data, optimization, operations research, quantitative finance, mathematical biology, biomedical science, biophysics, geophysics and public health. Interested participants are invited to submit their abstracts (**not exceeding 250 words as the template provided**) to the **Conference Secretary** of the organizing committee:

Dr. Parameshwari Kattel (email: ncma2022.nms@gmail.com; Ph:+977-9851128809).

Participants can choose the oral or poster presentation. However, the scientific committee may decide the category once the abstract is accepted. The **size of the poster** should be **3 feet by 4 feet**. The time and detailed schedule for the presentations will be informed later via e-mails.

Full paper can be submitted to the Journal of Nepal Mathematical Society (JNMS) through e-mail at jnms.submission@gmail.com. Only the accepted papers after peer review will be published.

For query, please contact to the Executive Editor of JNMS,

Dr. Shree Ram Khadka (email: shree Ram Khadka (email: shree Ram Khadka (email: shreeramkhadka@gmail.com ; Ph: 00977-9851064495)

Accommodation

The registered delegates who need accommodation, have to inform us during the registration. One can also request to Mr. Bishnu Prasad Bhandari (bpbmath@gmail.com; +977-9851212609, NMS EC Representative) or Mr. Bal Bahadur Tamang (+977-9842645724; email: tamang.bb100@gmail.com; Member Secretary of the Local Organizing Committee) for the management of the accommodation.

Registration Fees

The registration fee covers breakfast, lunch, snacks, conference kits, a conference dinner, and accommodation only (**but does not include transportation and any other local costs**). There will be a conference bus from Kathmandu to Ilam and back. The bus schedule and the cost will be informed later.

Participant	Until Jestha 5, 2079 (May 19, 2022)			Until Jestha 15, 2079 (May 29, 2022)	
	Faculty	Student*	Organizationa 1	Faculty	Student*
			Sponsorship		
Nepali	NRs 5000.00	NRs 4000.00	NRs 6000.00	NRs 6000.00	NRs 5000.00
SAARC	US \$ 70.00	US \$ 60.00	US \$ 80.00	US \$ 80.00	US \$ 70.00
Countries	Or IC 5000	Or IC 4500		Or IC 6000	Or IC 5000
Foreign other	US \$ 150.00	US \$ 100.00	US \$ 200.	US \$ 200.00	US \$ 150.00
than SAARC					
	*Scanned copy of valid student ID must be shown along with the registration form.				

For each accompanying person, the cost is NRs 4000.00 for Nepali, IC 3000 or \$40 for SAARC, and US \$ 50 for Foreign Participants).

Mode of Payment

Payment is to be made by the participant through **bank draft or transfer**:

Bank: Nepal Bank Limited, Kirtipur Branch, Kathmandu

Account Holder: Nepal Mathematical Society

Current Account Number: 04500100098942000001.

Swift Code: NEBLNPKA

For further query, please contact the NMS Treasurer, **Ms. Anjana Pokharel** (email: anjanapokharel11@gmail.com; +977-9840222100/014330850). Scanned copy of the proof of the payment is to be sent to ncma2022.nms@gmail.com.

Important Dates

Deadline to submit abstract: Jestha 8, 2079 (May 22, 2022) [Sunday]

Notification of abstract status: Within Jestha 10, 2079 (May 15, 2022) [Tuesday]

Registration open: Falgun 17, 2078 (March 1, 2022) [Tuesday]

Registration deadline: Jestha 9, 2079 (May 23, 2022) [Monday] (Early)

Jestha 15, 2079 (May 29, 2022) [Sunday] (Late)

Sponsorship

The sponsorship is solicited from

- Nepal Academy of Science and Technology (NAST)
- Mathematical Sciences Trust, Nepal
- Sukunda Pustak Bhavan (Publishers & Distributors)
- Other Institutions
- **.....**

Organizing Committee

Conference Chair: Prof. Dr. Narayan Prasad Pahari, President, NMS;

(**email:** nppahari@gmail.com; **phone:** +977-9851027435)

Conference Secretary: Dr. Parameshwari Kattel, Secretary, NMS

(email: ncma2022.nms@gmail.com or pkattel526@gmail.com, Phone: 9851128809)

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(email: rautmanojkumar2023@gmail.com; phone: 9852020168)

Member Secretary: Mr. Bal Bahadur Tamang [Coordinator, Tour Management and Logistics]

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Members:

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