PHENIKAA UNIVERSITY
FACULTY OF FUNDAMENTAL SCIENCES
Department of Mathematics

PHENIKAA MATH SEMINAR 2024

Hanoi, May 23, 2024

PHENIKAA MATH SEMINAR 2024

PROGRAM AND ABSTRACTS

Hanoi, May 23, 2024

Sponsor

Faculty of Fundamental Sciences,
PHENIKAA University

Organizing Committee

- Phan Quang Sang, PHENIKAA University, *Chair*
- Bui Xuan-Quang, PHENIKAA University, *Secretary*

Time and Venue

- 13:30–16:30, May 23, 2024
- 24th Floor, A9 Building, PHENIKAA University

Contact

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PROGRAM

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Chair: Phan Quang Sang

13:30 – 13:45 Welcome speech

Chair: Phan Quang Sang

13:45 – 14:30 **Ngo Hoang Long**
Numerical methods for stochastic differential equations

14:30 – 14:45 *Tea break & Photo session*

Chair: Vu Huu Nhu

14:45 – 15:15 **Nguyen Ngoc Luan**
Properties of generalized polyhedral convex multifunctions

Chair: Nguyen Duc Nga

15:15 – 15:45 **Duong Ngoc Son**
On CR maps between real hypersurfaces in complex spaces

ABSTRACTS

Numerical methods for stochastic differential equations

Ngo Hoang Long[1]

Abstract: In this talk, we present some modified Euler-Maruyama approximation schemes for stochastic differential equations (SDEs) with irregular coefficients. We also discuss the strong approximation for McKean-Vlasov SDE driven by Levy processes. This talk is based on several joint works with Dai Taguchi, Luong Duc Trong, Tran Ngoc Khue and Kieu Trung Thuy.

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Properties of generalized polyhedral convex multifunctions

Nguyen Ngoc Luan[1]

Abstract: This talk presents a study of generalized polyhedral convexity under basic operations on multifunctions. We address the preservation of generalized polyhedral convexity under sums and compositions of multifunctions, the domains and ranges of generalized polyhedral convex multifunctions, and the direct and inverse images of sets under such mappings. Then we explore the class of optimal value functions defined by a generalized polyhedral convex objective function and a generalized polyhedral convex constrained mapping. The new results provide a framework for representing the relative interior of the graph of a generalized polyhedral convex multifunction in terms of the relative interiors of its domain and mapping values in locally convex topological vector spaces. Among the new results in this research is a significant extension of a result by Bonnans and Shapiro on the domain of generalized polyhedral convex multifunctions from Banach spaces to locally convex topological vector spaces. This talk is based on a joint paper with Nguyen Mau Nam and Nguyen Dong Yen.

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On CR maps between real hypersurfaces in complex spaces

Duong Ngoc Son[1]

Abstract: The study of CR maps between real hypersurfaces has a long history which goes back to H. Poincaré from 1907. It has a close connection with the study of proper holomorphic mappings as well as holomorphic isometric embeddings. The latter, in turn, has intriguing connections to the study of modular correspondences. In this talk, I will report several results regarding classifications of CR maps between certain "symmetric" models in CR geometry, including the sphere, the tube over the future light cone, and the Winkelmann hypersurfaces. This is a joint work with Michael Reiter from Vienna.

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