SIAM Knights Conference
May 17th, 2019

The conference will be held in room 318
Mathematical Sciences Building (MSB)
University of Central Florida, Orlando

SIAM Knights is the student chapter of Society for Industrial and Applied Mathematics (SIAM) at the University of Central Florida.

The student chapter is proudly hosting this inaugural student conference to provide invaluable opportunities to develop networks with faculty members outside of the classroom, share ideas and research with people with similar interests, learn about career options, and develop leadership skill.

The theme of the inaugural conference is on mathematical biology and modeling. The conference features two keynote lectures given by one senior faculty and one junior faculty, and consists of seven student talks.

Student Organizers:

- *Nazar Emirov*
- *Rasika Rajapakshage*
- *Poroshat Yazdanbakhshghahyazi*

Faculty Advisors:

- *Joseph Brennan*
- *Zhisheng Shuai*

Keynote Speakers:

Pauline van den Driessche
Department of Mathematics and Statistics
University of Victoria, Canada

Chinwendu Enyioha
Department of Electrical and Computer Engineering
University of Central Florida

Student Speakers:

- *Christopher Botelho*
- *Henry Chang*
- *Mangalagama Dewasurendra*
- *Arielle Gaudiello*
- *Rasika Rajapakshage*
- *Jesse Randall*
- *Poroshat Yazdanbakhshghahyazi*

Sponsored by UCF
Department of Mathematics, University of Central Florida

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Schedule:

9:00 am - 9:05 am	Welcoming remarks
9:05 am - 10:00 am	**Pauline van den Driessche** *Discrete-Time Infectious Disease Models*
10:30 am - 11:00 am	**Arielle Gaudiello** *Impact of Asymmetric Movement on the Spatial Spread of an Infectious Disease*
11:00 am - 11:30 am	**Mangalagama Dewasurendra** *Optimal Semi-Analytical Method to Solve Nonlinear Differential Equations Arising in Epidemiology*
11:30 am - 12:00 pm	**Jesse Randall** *Rigorous Analysis of an Edge-Based Network Disease Model*
12:00 pm - 1:30 pm	Lunch Break
1:30 pm - 2:30 pm	**Chinwendu Enyioha** *Distributed Control of Spreading Processes in General Networks*
3:00 pm -3:30 pm	**Henry Chang** *Modeling Disease Immunity Dynamics*
3:30 pm - 4:00 pm	**Christopher Botelho** *Modeling Disease Impact of Vibrio-Phage Interactions*
4:00 pm - 4:30 pm	**Rasika Rajapakshage** *Clustering in Statistical Ill-Posed Linear Inverse Problems*
4:30 pm - 5:00 pm	**Poroshat Yazdanbakhshghahyazi** *Further Applications of Target Reproduction Numbers*
5:00 pm - 5:10 pm	Photo & concluding remarks
6:30 pm	Dinner

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