

## SMSS Undergraduates and Graduates Research Conference—Spring 2019

School of Mathematical and Statistical Sciences  
The University of Texas Rio Grande Valley

Date: May 3, 2019  
Location: MAGC 2.208, Edinburg

### Organizers:

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### Description:

The mission of the SMSS Undergraduates and Graduates Research Conference is to serve as a forum for dissemination of new scientific knowledge and discussion of mathematical ideas to foster interaction among students, faculty, and the local community. The conference invites oral and poster presentations of scholarly work from all fields: pure mathematics, applied mathematics, statistics and mathematical education. Sessions will be classified and organized based on disciplines or themes. All SMSS undergraduate and graduate students, faculty, and staffs are welcome to attend. The SMSS encourages and facilitates research opportunities for SMSS undergraduates and graduates in all majors and class levels. The SMSS promotes research as a high impact student experience to enhance readiness to succeed in future careers.

Interested scholars should submit his/her abstract with presenters name, institution/organization, address, and email to Dr. Jasang Yoon no later than April 28, 2019.

The conference is organized and sponsored by SMSS of UTRGV.

For further information, please contact Dr. Jasang Yoon at 665-3633 or via email [jasang.yoon@utrgv.edu](mailto:jasang.yoon@utrgv.edu).

**Conference Program on May 3, 2019:**

**Chair of Session I: Dr. Sergey Grigorian**

1. 9:20-9:30am: Dr. Tim Huber (Director of SMSS, UTRGV)– Opening address
2. 9:30-9:45am: Victoria Chavez, title: Power series solutions of Legendre's equation
3. 9:45-10:00am: Jaime F. Castillo Jr., title: Application of special functions to Bessel's equation
4. 10:00-10:15am: Kolade Adjibi, title: Quaternions and rotations
5. 10:15-10:30am: Kevin Pamposa, title: Quaternionic determinants

**10:30-10:45am: Coffee Break**

**Chair of Session II: Dr. Paul-Hermann Zieschang**

6. 10:45-11:00am: Akilan Mohana, title: The application of quaternions in computer graphics
7. 11:00-11:15am: Christian Saavedra, title: Murder at the Mayfair Diner—application of Newton's Law of cooling with Laplace transforms
8. 11:15-11:30am: Stephanie Flores, title: Contractive symmetric matrix completion problems related to graphs
9. 11:30-11:45am: Jose Palacio, title: Numerical solution of stochastic Burgers equation with variable coefficients





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