

2024 Texas Differential Equations Conference, Baylor University

All talks will take place on the 3rd floor in the Sid Richardson Building

Session A: Room 344

8:45 am – 9:00 am Registration

9:00 am – 9:05 am Welcome

9:05 am – 9:30 am Jameson Graber, Baylor University

On Mean Field Games through the Lens of Conservation Laws

9:35 am – 10:00 am Roshini Gallage, University of Oklahoma

Nonlinear Stochastic Differential Equations with Continuously Distributed Delay

10:00 am – 10:30 am Coffee break Room 340

Session B: Room 344

10:30 am – 10:55 am Qin Sheng, Baylor University

Splitting methods in the approximation of differential equation solutions

11:00 am – 11:25 am Pedro Takemura, Baylor University

Geometric Herz Spaces and Poisson Kernels

11:30 am – 11:55 pm Ellie Matter, Baylor University

Cluster Formation in Iterated Mean Field Games

12:00 pm- 2:00 pm Lunch at Penland

Session C: Room 344

2:00 pm – 2:25 pm Goong Chen, Texas A&M

Animal Shapes, Modal Analysis and Visualization

2:30 pm – 2:55 pm Huan Xu, The University of Texas at San Antonio

On a classification of steady solutions to two-dimensional Euler equations

3:00 pm – 3:25 pm Jesus Cruz-Lugo, Baylor University

A Fatou Theorem for Weakly Elliptic Systems in the Plane

3:30 pm – 3: 55 pm Mohammad Mahabubur Rahman, Sam Houston State University

On a regularity criterion for the three-dimensional Hall-magnetohydrodynamics system

Session D: Room 324

2:00 pm – 2:25 pm Henry Foust* and Youn-Sha Chan, University of Houston-Downtown

Toward a Simpler model for laminar flame speed associated with Solid Combustion

2:30 pm – 2:55 pm Maria P. Fernando* and S. M. Mallikarjunaiah, Texas A&M University-Corpus Christi

On modeling brittle fracture within the context of strain-limiting theories of elasticity

3:00 pm – 3:25 pm S. M. Mallikarjunaiah, Texas A&M University-Corpus Christi

On a New Theory for Brittle Fracture in Porous Elastic Solids whose Material Moduli Depend Upon the Density

3:30 pm – 3:55 pm Dipesh Baral, Washington State University

A Stochastic Differential Equation for Active Transport

3:55 pm – 4:20 pm **Coffee break Room 340**

Session E: Room 344

4:20 pm – 4:45 pm Eduardo Servin Torres, Baylor University

A study of finite difference approximations of the 2D Kawarada equation with cross derivative terms

4:50 pm – 5:15 pm Haseeb Ansari, University of Houston

Uniform Boundedness and Long-time behavior of Solutions to an SI model with Intermittent Treatment

5:30 pm – 7:00 pm **Dinner**