SMU-Math Research Experience for Undergraduates (SMU-REU): Summer 2023

The Department of Mathematics at SMU invites applications for two consecutive two-week research and training experiences covering topics in modeling heat/mass transfer (REU 1), and Complex systems (REU 2). Interested students can request adding participation in a Data Science REU which starts June 4, 2023

REU 1: Modeling transport processes in micro- and nanoscale systems
Dates: June 18– June 30, 2023
Faculty Mentors: Vladimir Ajaev, Scott Norris
Research projects involve modeling and simulation of complex processes of transport of heat, mass, and electrical charge in configurations with micro- and nanoscale features such as structured surfaces, nanopores, and microfluidic channels. Some of the projects will be in collaboration with Lyle School of Engineering.

REU 2: Complex Systems
Dates: July 5- July 15, 2023
Faculty Mentors: Alejandro Aceves and Brian Choi
Research projects will center on modeling complex systems in the broadest sense. We will identify projects in diverse areas of applications in science and engineering.

Review of applications will begin on March 27 2023: later applications will be considered as space permits. To more information, contact ajaev@smu.edu or aaceves@smu.edu.

To participate, students must be US citizens or permanent residents and must not have completed their undergraduate degree before January 2023 Selected students will receive a stipend of $1,200 per two-week session, plus up to $600 towards travel to Dallas as well as accommodation. We encourage applications from women and other groups traditionally underrepresented in mathematics. Students must apply to one of the following 3 formats: I. REU1, II. REU 2, III. REU1 +REU2. To submit a complete application, please submit the following items via e-mail to ajaev@smu.edu:

- One letter of recommendation, preferably from a mathematics professor. Letters may be sent directly from the individuals who are writing the letters.
- An essay of 250-500 words describing your research interests, educational interests, and professional plans.
- An academic transcript (unofficial or official)
- Students should indicate which REU she/he is applying for REU1 only, REU2 only or REU1+REU2. Students wishing to add the DS