



# New Mexico State University

## Research Training Group in Logic and Its Application

This opportunity provided by a 5-year NSF grant funds undergraduate math majors for \$5,000 during the academic year and \$5,200 in the summer to work with undergraduate and graduate students on problems in logic and its application to areas such as computer science and quantum computing.

The topic for the RTG in Fall 2026 - Spring 2027

### **Rings of Continuous Functions**

Continuous real-valued functions form a ring, which means that they can be added and multiplied and that the familiar laws of elementary algebra hold for these operations. They can also be compared using order and distance. As a result, rings of continuous functions are important structures in abstract algebra, lattice theory, and functional analysis. We investigate these rings and their generalizations from these perspectives.

To contribute, it is not expected you have a background in these areas. All that is needed is linear algebra, experience with learning new mathematics, and an open mind.

Duties include contributing to a weekly seminar and weekly group meetings during the academic year. A course geared to RTG topics will be offered in the fall and it is intended that participants will take this. In the summer, we will spend 4 weeks on a group project. Aims of the project include presenting results at local research workshops and placing some undergraduate participants into future summer internships at Sandia, NASA, etc. Read more at [math.nmsu.edu/research/rtg/rtg.html](http://math.nmsu.edu/research/rtg/rtg.html)

Applications should be sent by January 10, 2026 to John Harding [jharding@nmsu.edu](mailto:jharding@nmsu.edu) and Andre Kornell [kornell@nmsu.edu](mailto:kornell@nmsu.edu) and include a 1-page statement about yourself and your interests as well as transcripts.