The Association for Women in Math Presents:

Protein Journey Inside Cells: How Can Mathematical Modeling and Data Analysis Help?

Date:

FEBRUARY 6

Time:

4:30pm

Location:

Petigru 217

Dr. Veronica Ciocanel

Duke University

For more information:
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or Garnet Gate!

“Inside cells, there are many proteins that must make their way to specific locations in order to ensure that cells function and develop properly. Other classes of proteins use energy to help fuel this movement, and protein filaments provide roads along which the transport dynamics occurs. I will give a couple of examples where understanding interactions between these proteins inside cells require the development of novel mathematical modeling, analysis, and simulation. These tools include partial differential equations, stochastic processes, and topological data analysis, and the applications include egg cell development and proper neuronal function. Along the way, I will give some personal perspectives on finding interdisciplinary research collaborations.” -- Dr. Ciocanel