Mathematical Biology Seminar

Monday, September 25, 2023

3 pm MDT - 457 CAB (in person)

Join Zoom Meeting

Brian Zambrano Luna

Department of Mathematical and Statistical Sciences
University of Alberta

P-Adic Cellular Neural Networks and Image Processing

We introduce p-adic cellular neural networks, a mathematical generalization of cellular neural networks. These networks have infinite cells with a hierarchy structure and hidden layers.

We discuss two types of p-adic CNNs: one for grayscale image edge detection and another for a class of reaction-diffusion networks to reduce noise.

Additionally, we touch upon the potential of remote sensing and image processing in coral reef conservation, highlighting their role in studying reef health, species composition, and environmental changes.