

# Department of Applied and Computational Mathematics and Statistics Colloquium



## Matthew Sisk

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### *Spatial Data Science for Healthier Communities*

Spatial data science (GIS, Remote Sensing, etc) can be a powerful tool for addressing the complex challenges of community health and wellbeing. Structural factors make it so many health outcomes are highly correlated with where someone lives, but traditional approaches often either ignore or minimize this spatial component. This talk explores the pivotal role of spatial data science in promoting healthier communities by leveraging geospatial information, advanced analytics, and interdisciplinary collaboration within the Michiana region. By integrating geospatial data with traditional health datasets, we can gain a deeper understanding of the spatial determinants of health, such as environmental factors, social disparities, and access to services. In particular, methods for both assessing the impact of environmental toxin (primarily lead) exposure risk on local populations and for sharing the insights from these analyses with community members will be explored.

**Fri, Nov. 3, 2023**

**3:45 – 4:45 PM**

**127 Hayes-Healy Center**

**Colloquium Tea – 3:15 PM in 101A Crowley Hall**