



## SIAM Meeting on 10/13/20 - Talk by Doctor Dominique Duncan

- Dr. Duncan introduced her talk, "Studying the Brain and COVID-19 Using Multi-Modal and Large-Scale Data"
- Dr. Duncan began with a discussion of epilepsy and the study thereof. Challenges faced include the fact that the majority of people who suffer a traumatic brain injury never develop epilepsy, and when they do it can take more than ten years before seizures occur.
- Dr. Duncan explained that another problem is that epilepsy is far more complex in human than in rats, meaning research must be conducted at the human level.
- Prof. Pasik-Duncan noted that the variety of Dr. Duncan's work shows that any subject can be studied through the lens of mathematics.
- Dr. Duncan explored a project using virtual reality to achieve simpler brain segmentation.
- Dr. Duncan closed by giving an overview of the COVID-ARC project, which is designed to aggregate COVID-19 data in a meaningful way.

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Executive Board of the SIAM KU Student Chapter