## Department of Mathematics Fall 2017 Colloquium Series

## Solar Energy Soiling: The Problem, Experiments, and Model Development



Liza Boyle

Environmental Resources Engineering
Humboldt State University
Thursday, November 2, 2017
BSS 204, 4:00 pm

Image credit: TzahiV

Dust accumulation, or soiling, on solar energy harvesting systems can cause significant losses that reduce the output of the system and reduce confidence in solar energy.

Developing a method of estimating soiling losses could improve estimates of solar energy system outputs, operation and maintenance costs, and improve siting of solar energy systems. But how do we think about this kind of problem? And what do we need to develop a model? This talk will discuss theory, experiments, data analysis, and model development in this area. The results show that our approach achieves a generalized model with good agreement to data.

Professor Liza Boyle teaches in Environmental Resources Engineering at Humboldt State University and conducts research related to solar energy systems and airborne particles.

For more info, go to <a href="http://www.humboldt.edu/math/news-and-events/math-colloquium">http://www.humboldt.edu/math/news-and-events/math-colloquium</a>

We cordially invite you to the Pre-Colloquium Tea on the third floor of the BSS building at 3:30 pm on Thursday.