THE EARTH INSTITUTE
COLUMBIA UNIVERSITY

The NASA Goddard Institute for Space Studies, in collaboration with the Earth Institute, invites you to two special EI LIVE "**MASC Snowflake ID**" presentations.

The purpose of the project is to involve students and the public in the science of snowflake classification through Zooniverse while simultaneously building a dataset that will be used to "teach" machine-learning algorithms to identify other, larger sets of snowflakes automatically. The detailed structure of snowflakes tells us a lot about how precipitation forms, grows, and evolves. An improved understanding of these processes enhances our ability to model and predict clouds, precipitation, and ultimately global climate change. For example, interpretation of measurements from NASA's Global Precipitation Measurement satellite instruments are strongly influenced by snowflake structure, so a more detailed knowledge of these structures leads to improved measurements and predictions of global rainfall.

**MASC Snowflake ID (Grades 9-12, undergrad, educators) - Machine Learning for Snowflake Classification**

**Date/Time:** June 8th, 2:00 – 3:00 EDT

**Description:** Machine learning is being used to make advances in just about every industry today. In this session, we will introduce you to the three components of machine learning and show you how they come together to automatically classify images of snowflakes. This introduction will include a description of up to four different machine learning algorithms, which are different ways of applying mathematical and statistical techniques to find the best solution.

**Materials:** none

To RSVP, please visit: https://www.eventbrite.com/e/earth-institute-live-machine-learning-for-snowflake-classification-tickets-103812995464

**All the sessions are free, but pre-registration is REQUIRED for each event.** We will send a YouTube link to all registered participants 30 minutes prior to the start of the programming.