

1135-VF-639 **Esther R. Widiasih*** (widiasih@hawaii.edu), UHWO, 91-1001 Farrington Highway, E-217, Kapolei, HI 96815. *Mathematical modeling of climate change*. Preliminary report.

Undoubtedly, Earth's climate is a complex system, and today it is going through some major changes. Can one understand climate change through the lens of simple math models, accessible to undergraduate students? If so, what do these simple models tell us about the climate? In this talk, I will introduce the *Budyko* zonal energy balance model. I will then illustrate its potential applications, ranging from studies of coral to permafrost, under the duress of temperature rise. These applications could lead to either classroom materials or undergraduate student research. (Received September 11, 2017)