

Team building exercises and show me what you do and don't know already

Everyone should download the dataset of ocean sediment core 607 from the ocean drilling project that I have provided from a link on the class schedule for today's date. The data use a linear age model (age is linear with depth of sediments) designed by Peter Huybers at Harvard University. I downloaded his file from <http://www.people.fas.harvard.edu/~phuybers/Progression/Records.txt> and extracted just core 607.

Everyone should plot the d18O column versus age using your favorite plotting package and come to class on Thursday with the plot. Note that age is in thousands of years.

As a group please divide up the following questions. Do not spend more than a couple of hours on your question, and ideally spend about 15 min. The idea is to contribute something and get to know each other. Write up your answers and be prepared to discuss it in class next Tuesday.

Choose a group leader who will see that each question has a volunteer or volunteers and will write down the names of the volunteers. Volunteers should say a few words about their question on Thursday right away if possible, but the leader should not let any group speak for more than 5 minutes. If you don't have a clue, volunteer for the first question.

- 1) How and why do the wiggles change their character over time?
- 2) What is d18O measuring in this context and what does it tell us about Earth's climate?
- 3) What is an age model? Why do we need one?
- 4) What is the power spectrum of the time series? What does it tell us?