

## Order of Magnitude Problem Set

**Integrals are not allowed!**

Please submit *via PDF* before the start of class next Friday. Feel free to consult Purcell's sheet of useful numbers (one copy available at <https://spinlab.me/2023/09/01/purcell-cards-order-of-magnitude-physics/>). Try to google as little as possible - this is an exercise in seeing how far you can get using what you already know!

1. **Einstein's Last Breath:** Present your estimation of how many atoms from Einstein's last breath are in you. There were several possible effects we did not have time to consider in class; feel free to address them.
2. **Net Angular Momentum of the Solar System:** Estimate the total net angular momentum of the solar system. Please use the vector sum (so two objects orbiting in opposite directions would cancel each other out), but you don't need to actually specify the direction of the vector.