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1372 watts/m<sup>2</sup> solar power (solar flux) reaches the atmosphere of earth on average. One of the projects I am focusing on this summer is using mathematical modeling to analyze what fraction of this power gets reflected back into space and how much solar power would differ as the incidence angle of solar power changes as one moves further away from or closer to the equator. Also, I am working on models to find out how much solar power intensity changes in the course of the day and how much extra energy would a solar panel get if it tracks to face the sun vs. fixed position. Does the extra energy outweigh the cost of energy to move it?

I will then use the information to work on a cost-benefit analysis in order to find out the best type of solar panels for our school to install in the school grounds which is in line with our college's efforts to use more sustainable energy.