

Team Catastrophe Self-Reflection

We recently changed project topics so our timeline has been a bit skewed. For our previous project topic, we met twice a week to try and derive our Maxwell stress relation, but to no avail. So since we switched topics last week, we have continued to meet up twice a week to discuss the important points which we wish to calculate from our simulation. The work has been split exactly down the middle, since we pretty much work on everything when we meet, instead of on our own.

Currently, the most important aspect of our computational model is getting an accurate mechanical strain resulting from the applied electric field on our rigid body (inverse piezoelectric effect). I have a feeling this will be a gross approximation because the hard-particle Monte Carlo methods contained in the package we are using are not built for crystalline configurations, and more for rigid molecular bodies with full rotational degrees of freedom, but as the simulation gets closer to being complete we will see.