Progress Report F9 October 25, 2013 Erik Kountz

Nuclear Magnetic Resonance at the atomic level

Abstract

Nuclear Magnetic Resonance (NMR) is a widely used in todays world. It is used in noninvasive and harmless Magnetic Resonance Imaging and in NMR spectroscopy, a way to determine the structure of molecules by focusing on a particular element of choice. However, NMR is not well understood by the general public because it is both a relatively new discovery and because the effect comes from quantum mechanical descriptions of the atom. My project will be focused on visualizing the basic math used in NMR through a real time interactive computer animation (RITCA). This RITCA will visually show atoms changing orientation during a simulation of NMR, much as what happens when actual NMR is performed. This combination of activities complements my knowledge and understanding of NMR and my project will enable a general audience to understand how NMR works to some degree.

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I have learned how to use svn both in command line form and with TortoiseSVN. In addition, I have rewritten my proposal and made grammatical corrections. I have Python Open GL on my computer and have begun working on my program. At the moment, I am a little behind my schedule, but I plan on catching up this week. Finally, I have my website dated and will continue to add pictures and text as my programming progresses. All of this will be found in my proposal folder.

Bibliogrophy

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