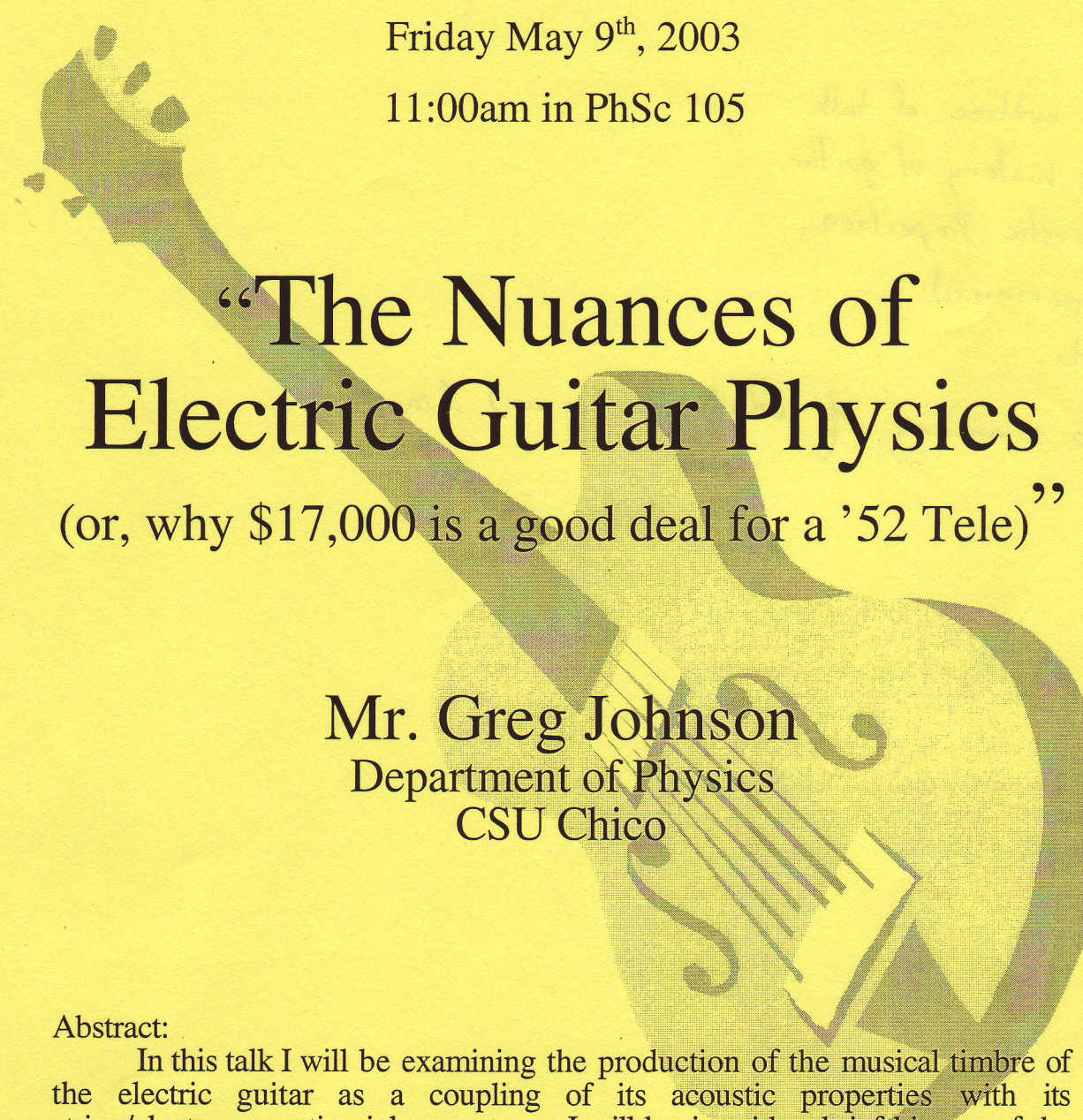


# Physics Department Seminar

Friday May 9<sup>th</sup>, 2003

11:00am in PhSc 105



## “The Nuances of Electric Guitar Physics

(or, why \$17,000 is a good deal for a '52 Tele)”

Mr. Greg Johnson  
Department of Physics  
CSU Chico

### Abstract:

In this talk I will be examining the production of the musical timbre of the electric guitar as a coupling of its acoustic properties with its string/electromagnetic pickup system. I will begin with a brief history of the development of the electric guitar and the theory behind the electromagnetic pickup. I will then present a basic introduction into the acoustic theory of the guitar. I will show and explain data I've gathered through experimentation that shows the hybridization of these two systems in the output waveform of the electric guitar. I will also spend the final part of my talk discussion technological developments in the creation of the new modeling guitar and hopefully have a demonstration model available.