

BENEMÉRITA UNIVERSIDAD AUTÓNOMA DE PUEBLA



**INSTITUTO DE FÍSICA
"Luis Rivera Terrazas"**



**SEMINARIO EXTRAORDINARIO
"DR. JESUS REYES CORONA"**

"Schwinger pair creation in time-dependent fields"

Dr. Christian Schubert

**Instituto de Física y Matemáticas
Universidad Michoacana de San Nicolás de Hidalgo.**

Sauter and Schwinger realized in the early days of quantum electrodynamics, that an electric field can, by quantum fluctuations, produce electron-positron pairs out of the vacuum. To get a sizable probability for this effect requires a very strong field, so that this effect remains still unobserved. However, it is believed that super-strong lasers could lead to its observation in the near future. After a short introduction, I will survey here various methods that are available for studying this effect for the special case of purely time-dependent fields, and present some special cases. Finally, I will discuss the closely related issue of the mass shift of the electron in a constant electric field.

Auditorio-IFUAP

Jueves 14 de Enero de 2016

13:00 Hrs.