On behalf of the

Science College CMS

Vienna Computational Materials Laboratory

and Center for Computational Materials Science

we cordially invite you to the following seminar

Dipl.-Phys. Ronald Starke

Computational Materials Physics, University of Vienna, Austria

The Green function method in many-body physics and electronic structure theory

In this talk, I give a survey of recent progress in my PhD work. The general topic is the Green function method in many-body physics and electronic structure theory. The main points addressed in this talk are:
(i) problems with Hedin's equations, (ii) derivation of a new fundamental system of propagator equations, (iii) unitary covariance (or basis set independence) of fundamental equations, (iv) unified view on Hartree, Hartree-Fock, Random Phase, GW and Ladder Approximation, (v) connection between Equation of Motion and Perturbation Theory, (vi) beyond standard approximations. Furthermore, a brief motivation for the introduction of Green functions will be given.

Date: Monday, March 28, 2011 16:00

Location: Josef-Stefan-Hörsaal,
Strudlhofgasse 4, 3rd floor, 1090 Wien