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Einladung zum  
**WIENER PHYSIKALISCHEN KOLLOQUIUM**

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**Phonon Spectroscopy with  
Synchrotron Radiation**

**Francesco Sette**

European Synchrotron Radiation Facility (ESRF)  
Grenoble, France

I will report on studies of the microscopic motion of atoms in condensed matter using the newly developed synchrotron based technique of inelastic x-ray scattering (IXS) with very high energy resolution. The atomic motion is inherently related to many macroscopic properties of materials. The study of its elementary collective excitation often allows a deeper understanding of materials' properties in terms of their microscopic behavior. The IXS development has allowed to investigate a wide range of materials which are difficult for standard neutron spectroscopy. Among others, I will report on studies of liquids, disordered systems and materials in extreme thermodynamic conditions.

*Personal information:*

Francesco Sette recently began his five-year term of office as one of the ESRF's Research Directors. Francesco has many firsts to his name. For the first time, ESRF appointed one of its resident staff to the Director's post. He has been the Head of the Inelastic X-ray Scattering Group at the ESRF for some 10 years. Prior to this, he was a staff member (1984-1990) at Bell Laboratories (Murray Hill, NJ, USA).

**Montag, 15. März 2004, 17:30 Uhr**

(ab 17:00 Uhr Kaffee)

Großer Hörsaal des Instituts für Experimentalphysik der Universität Wien  
Strudlhofgasse 4/1. Stock, A-1090 Wien

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ÖPG

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