

Consiglio Nazionale delle Ricerche

Istituto per i Processi Chimico-Fisici

Area della Ricerca di Pisa

Avviso di Seminario

Giovedì 15 Settembre 2005

ore 11:30

Aula 30

Prof. Andrey N. Stepanov

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www.sci-nnov.ru/science/science/appl/

terrà un seminario su:

**Interaction of highly intense femtosecond
laser pulses with matter: nonlinear effects**

Abstract. The review of the experimental efforts in the field of interaction of highly intense femtosecond radiation with solids, gases and plasma performed in the Institute of Applied Physics, N. Novgorod, Russia will be presented. The different femtosecond laser facilities will be introduced (starting from the low-energy femtosecond oscillator to 100 TW laser complex) existing in the IAP. Nanofabrication on the surface of the samples, shock wave generation and modification of the material of the sample take place when femtosecond (fs) radiation is applied to the solids. The results on ionization induced spectrum modification and Raman amplification of fs pulses in plasma will be presented.

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