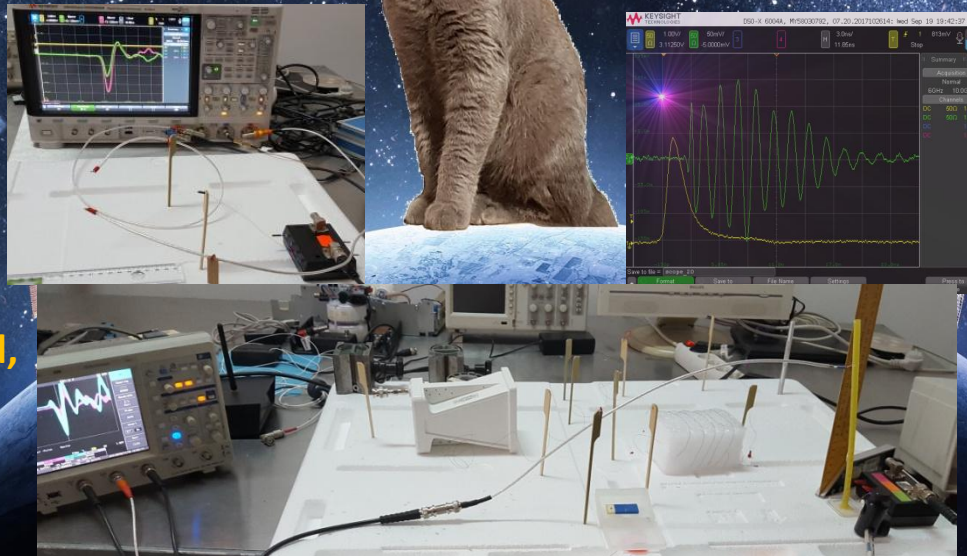


Surface plasmon polaritons (SPP) in very high field experiments and particularly for high power pulsed laser applications

A lecture experiment will be given by Mihai Ganciu, from Low Temperature Plasma Department, INFLPR, on Tuesday December 3, 2019 at 11:00 A.M., at the Department of Theoretical Physics, IFIN-HH.

It is an interesting field, with a very nice transition from very low power to very high power.



Important theoretical aspects can be verified by using table-top devices. If an SPP propagates well on a $10\ \mu\text{m}$ metal wire, then why would not it spread on a $10\ \mu\text{m}$ diameter plasma filament? If accelerated electron beam was guided by metal wires, propagating a very intense SPP, why would not it also be valid for plasma filaments?

I invite you to make together some experiments and to start a "brainstorming" about, particularly if the high sensibility of the cat eyes could be explained by plasmonic resonances.

I intend to develop these experiments for students too.

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