CENTER FOR BEAM PHYSICS SEMINAR

"Resistive Wall Impedance of a Multi-Layer Elliptical Chamber"

Dr. Alexey Burov
FNAL

Friday, October 12, 2001, 10:30 AM
Bldg. 71 Albert Ghiorso Conference Room, LBNL

Dr. Burov will present:
"Resistive Wall Impedance of a Multi-Layer Elliptical Chamber"
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Abstract:

Usually, the resistive wall impedances are calculated assuming the skin depth much smaller than the metal thickness. This condition is broken when either the revolution frequency is low (VLHC, stage 1) or the metal is thin (TiN coating for the extraction kicker of the SNS ring). In both cases, the details of the outside structure are significant. Analytic calculations of the transverse impedance are presented for this situation, including the form-factors due to the chamber ellipticity.

Biographical and Educational data:

1980 – Master Degree, Novosibirsk University (Russia)
1990 – Ph. D., Budker INP, Novosibirsk;
Thesis "Single-bunch collective longitudinal effects";
1980-1997 – research and education work in Budker INP and Novosibirsk University
1997- Associate Scientist in Fermilab

Research interests: collective effects, beam optics, electron cooling, IBS

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