

Special Colloquium



DR. SEMYON TSYNKOV
NCSU

"THE HUYGENS' PRINCIPLE AS A COMPUTATIONAL TOOL"

We will discuss the (strong) Huygens' principle as it applies to Maxwellian electrodynamics, and show how it can be exploited for the design of numerical methods with specific advantageous properties. In particular, we will demonstrate that it can help one obtain temporally uniform error bounds over arbitrarily long time intervals. Theoretical developments will be corroborated by numerical simulations, including those performed using third party production CEM and/or plasma codes.

Collaborators: V. Ryaben'kii, V. Turchaninov, S. Petropavlovsky, and Computational Sciences, LLC. Funding: NSF, AFOSR, and ARO (STTR Phase I and II).

Wednesday, March 11th, 2015

Room 284, the 2nd Floor of the Surge Building

Tea Time: 3:30 - 3:40 p.m.

Vision Talk: 3:40 - 4:00 p.m.

Questions / Break: 4:00 - 4:10 p.m.

Scientific Talk: 4:10 - 5:00 p.m.

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