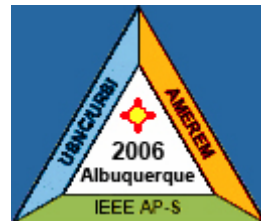



IEEE AP-S International Symposium
USN/URSI
National Radio Science Meeting
AMEREM Meeting

July 9 – 14, 2006, Albuquerque



 IEEE AP-S International Symposium
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On-Site



On-Site



On-Site



Trouble Desk



PRE
REGISTRATION

REGISTRATION AND
RESERVATION DEADLINE
EXTENDED UNTIL
11:59 PM EST
OCT 15, 2012

CLOSED

















FDTD Modeling of Temporally Dispersive Media Using a Stable Rational Function of the Z-Transform Variable



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Abstract:

In order to model the propagation of signals in dispersive media, a rational function approximation of the transfer function is used. This approximation is used to model the medium's response to a signal. The approximation is used to model the medium's response to a signal. The approximation is used to model the medium's response to a signal.

State of The Art:

State of the art in modeling dispersive media. This section discusses the current state of the art in modeling dispersive media. It covers various methods and their limitations.

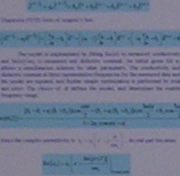
Propagation in Dispersive Media in Time-Domain:

$$\frac{\partial^2 E}{\partial z^2} - \epsilon(\omega) \frac{\partial^2 E}{\partial t^2} = 0$$
$$\epsilon(\omega) = \epsilon_0 \left(1 + \frac{\omega_p^2}{\omega^2 + \gamma\omega + \omega_0^2} \right)$$

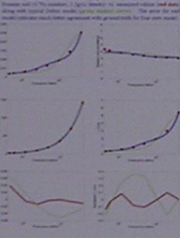
Four-Deriv Conductivity: Rational Function:

$$\epsilon(z) = \frac{2.15 \times 10^{-12} z^2 + 1.2 \times 10^{-12} z + 1.2 \times 10^{-12}}{1 - z^{-2}}$$

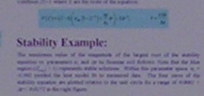
Modeling Example:



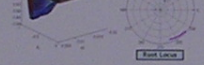
Simulation Example:



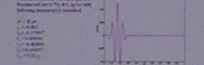
Stability Analysis:



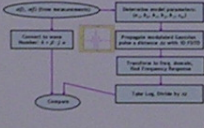
Stability Example:



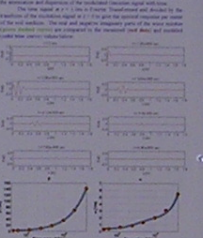
Simulation Example:



FDTD Simulation Testing:



Simulation Results:



Conclusions and Future Work:

Conclusions and future work section. This section discusses the results of the study and suggests areas for future research.

References:

- 1. [Reference 1]
- 2. [Reference 2]
- 3. [Reference 3]
- 4. [Reference 4]
- 5. [Reference 5]

This work was supported by [Funding Source].



















Conclusions

- Conference rooms are spacious with a big size screen and speakers
- Poster area with industrial exhibitors was very large and well arranged. Poster panels were big enough. However, I felt the organization kind of confusing (but I was only one afternoon...)
- Coffee and Tea (sponsored by Starbucks) were available **only** in the poster/exhibitors area. There were several “coffee pots” but around 15:00 only a few had any coffee on them.
- I noticed also several water fountains around the rooms

Conclusions

- They had free pop corn!!! 😊 next to the coffee
- There were enough tables and chairs in the area but no sofas 😞
- Internet café was well set up but it seemed too small (but most of the people bring laptops anyway)
- Wireless was available in the whole area, so people sitting on the tables had access
- I heard some complaints regarding breakfast
- Also people left their posters rather soon...