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Hear Ye! Hear Ye!

Notable Authors Winter 2011



SUMMA
FOUNDATION

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Markus Nyffeler



Frank Peterkin



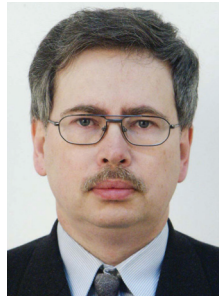
Ronald Rambousky



David C. Stoudt



Fred M. Tesche



Sergey Tkachenko

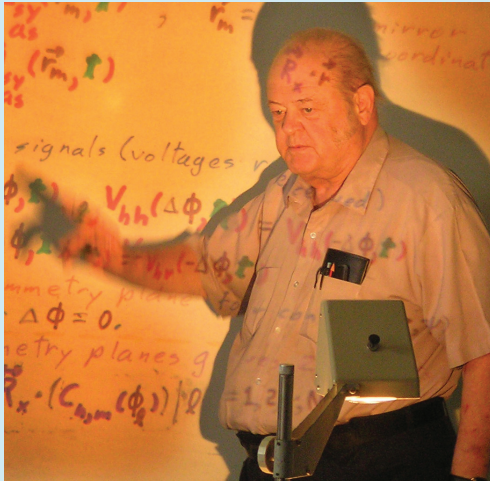
Notes Uploaded on January 9, 2012 to www.ece.unm.edu/summa/notes

IN 622 *Transient RF and Microwave Pulse Propagation in a Debye Medium (Water)*,
David C. Stoudt, Frank E. Peterkin, and
Brian J. Hankla, Ph.D., July 2011

IN 623 *Electromagnetic Field Coupling to Transmission Lines Inside Rectangular Resonators*,
S. Tkachenko, **J. Nitsch,** and **R. Rambousky,**
June 2011

SSN 557 *Swiss Impulse Radiating Antenna (SWIRA) Characterization in the Presence of a Local Ground Plane (Earth)*, **F. M. Tesche, D. V. Giri** and
Markus Nyffeler, October 2011

SDAN 39 *Survivable Communication Networks with Non-Directed and Directed Graphs*,
Ira Kohlberg, December 2011



Dear Members of the HPE Community,

Many applications of emerging short-pulse technology will involve propagation through, or interaction with, many media such as the earth's surface, water, and the earth's atmosphere. We have two papers that address such issues.

In **IN 622**, Stoudt and his colleagues at NSWC examine development of transient fields that result when short-duration radio frequency (RF) and microwave pulses propagate in a dielectric that can be described as a Debye medium. Tesche, Giri and Nyffeler consider the effects of ground bounce on the radiated waveforms of an Impulse Radiating Antenna (IRA) in **SSN 557**.

Tkachenko, Nitsch and Rambousky investigate field coupling to transmission lines inside rectangular cavities in **IN 623**. It is interesting to note that they estimate the induced effects both analytically and numerically. Finally in **SDAN 39**, Kohlberg uses Graph theoretical concepts to investigate the resilience and survivability of communication networks from malicious attacks.

On behalf of the editorial board of the NOTE series, I wish to thank the authors and reviewers of these publications for their contributions in keeping up the high-standards of the NOTE series set by Carl Baum. *Happy reading!*

Dave Giri

Dr. D. V. Giri, Chief Editor

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Manuscripts should be e-mailed to Dr. Giri (Giri@DVGiri.com) for consideration. It is the responsibility of the author(s) to get the paper cleared for public release. The Notes will be uploaded to www.ece.unm.edu/summa/notes twice-a-year, in June and December. The announcement of newly published notes will be sent out to subscribers twice a year by postcard. You can be added (at no cost) to this postcard notification mailing list by e-mailing Chuck Reuben at shawnee@unm.edu . If you have received this post card by mail, you are already on our mailing list. All Notes should be cited by mentioning, Author(s), Title, Name and Number of the Note, the Date of publication and the URL from where it can be accessed. "All published Notes are approved for public release and their distribution is unlimited.

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