Publication List

Brian MacKie-Mason

July 31, 2017

Publications

1. **B. MacKie-Mason**, A. Greenwood, and Z. Peng, "Adaptive and parallel surface integral equation solvers for very large-scale electromagnetic modeling and simulation (invited paper)," *PIER,* **154**, 143 (2015).

2. **B. MacKie-Mason** and Z. Peng, "Towards Real-time In-Situ Antenna Analysis and Esign on Platforms of 1000 Wavelengths", *IEEE AP-S,* San Diego, CA, July 2017 (in press).

3. Z. Peng and **B. MacKie-Mason**, "High-Performance Surface Integral Equation Solvers Towards Extreme-Scale Electromagnetic Modeling and Simulation," *IEEE ACES,* Honolulu, HI, March 2016.

4. Z. Peng, R. Hiptmair, Y. Shao, and **B. MacKie-Mason**, "Domain Decomposition Preconditioning for Surface Integral Equations in Solving Challenging Electromagnetic Scattering Problems," *IEEE TAP,* **64**, 210 (2016).

5. **B. MacKie-Mason** and Z. Peng, "Adaptive, Scalable Domain Decomposition Methods for Surface Integral Equations," *IEEE AP-S,* Vancouver, B.C., July 2015.

6. Z. Peng and **B. MacKie-Mason**, "Integral equation discontinuous Galerkin methods for time harmonic electromagnetic wave problems," *IEEE ACES,* Williamsburg, VA, March 2015.

Talks/Presentations

1. **B. MacKie-Mason** and Zhen Peng, "Towards a Real-Time Solution of Extreme-Scale Electromagnetic Problems", *USNC-URSI NRSM,* Boulder, CO, U.S.A., January 2017.

2. **B. MacKie-Mason**, Z. Peng, and C. Kung, "Extreme Fidelity Computational Electromagnetic Analysis in the Supercomputer Era", *IEEE SC16,* Salt Lake City, Utah, U.S.A., November 2016.

3. **B. MacKie-Mason** and Z. Peng, "High-fidelity, High-performance Integral Equation Solver for Time-Harmonic Maxwell's Equations", *IEEE AP-S,* Fajardo, Puerto Rico, U.S.A., June 2016.

4. **B. MacKie-Mason** and Z. Peng, "Adaptive and parallel surface integral equation solvers for very large-scale electromagnetic modeling and simulation," *ECE GSA Student Paper Competition,* Albuquerque, NM, April 2016.

5. **B. MacKie-Mason**, W. Tang, "Modeling of laser-induced field emission", *Air Force Research Lab Annual Scholar Presentation,* Albuquerque, NM, July 2013.

6. **B. MacKie-Mason**, N. Lockwood, W. Tang, "Development of single-walled nanotube fiber cathode diagnostics", *Air Force Research Lab Annual Scholar Presentation,* Albuquerque, NM, July 2012.

7. **B. MacKie-Mason**, A. Greenwood, N. Lockwood, "Automated Testing of ICEPIC", *Air Force Research Lab Annual Scholar Presentation,* Albuquerque, NM, July 2011.