

## EDITORIAL

It is a great pleasure to announce that Dr. Luis Lehner has been awarded the 1999 Nicholas Metropolis Award for Outstanding Doctoral Thesis Work in Computational Physics. Dr. Lehner studied in the Department of Physics and Astronomy, University of Pittsburgh, and is presently a post-doctoral fellow at the Center for Relativity, University of Texas at Austin. The Award is sponsored by Academic Press, publisher of the *Journal of Computational Physics*. It will be presented by the American Physical Society at its Centennial Meeting, March 1999, in Atlanta, GA. The Award is accompanied by a cash award of \$1500.

Dr. Lehner's thesis, entitled "Gravitational Radiation from Black Hole Spacetimes," describes a novel characteristic method for the numerical solution of Einstein's gravitational field equations for moving black holes. Moving and interacting black holes are such strong sources of gravitational waves that they may be detected by instruments on Earth. However, Einstein's equations are notoriously difficult to solve, especially in the presence of large, localized masses. Dr. Lehner not only developed a stable numerical scheme for gravitational field equations, but also one that gives solutions for moving black holes. Details are described in "A Dissipative Algorithm for Wave-like Equations in the Characteristic Formulation," which will appear in the *Journal of Computational Physics* early this year.

The Award is named for Nicholas Metropolis, who is truly one of the pioneers in computational physics. Nick had a varied career, most of it spent at the University of Chicago and Los Alamos. His collaborators include Fermi, von Neumann, Teller, Bethe, and Feynman, some of the most famous physicists and mathematicians of the 20th century. He developed the Metropolis algorithm, or importance sampling, which is one of the most widely used and most often cited algorithms for Monte Carlo calculations (N. Metropolis, A. W. Rosenbluth, M. H. Rosenbluth, A. H. Teller, and E. Teller, *J. Chem. Phys.* **21**, 1087 (1953)). He led the development of the MANIAC computer at Los Alamos (Mathematical Analyzer, Integrator, and Computer), probably the most successful first generation, programmable computer, and a direct ancestor of our present-day computers.

A Metropolis Award winner will be chosen in advance of each meeting of the Division of Computational Physics (DCOMP) of the American Physical Society. Nominations will be solicited in mailings from DCOMP, and should be sent directly to the Chairman of the Metropolis Award Committee.

Jerry Brackbill  
*Editor*