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## 2003 IEEE Fellows

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Makoto Ando\*

*For contributions to the design of high-gain planar waveguide arrays.*

Ercument Arvas\*

*For contributions to the solution of electromagnetic scattering problems.*

Quirino Balzano

*For contributions to methodologies for assessing exposure to radiofrequency radiation from portable communication devices.*

Marek Edward Bialkowski\*

*For contributions to the modeling, design, and testing of microwave guiding and radiating structures.*

Zoltan Joseph Cendes

*For contributions to the application of finite-element modeling to microwave guides, structures and circuits.*

Da Gang Fang

*For contributions to the development of the full-wave discrete complex image method and modified matched-layer absorbing boundary conditions.*

James Harvey

*For technical leadership in formulating and managing government research programs in science and technology.*

Kiyohiko Itoh

*For contributions to the development of small antennas and their applications.*

Ramakrishna Janaswamy\*

*For contributions to numerical modeling techniques in radiowave propagation and electromagnetic scattering.*

Brian Michael Kent\*

*For leadership in the development and application of radar cross section measurement.*

Randall William Kreutel\*

*For contributions to antenna technology for satellite communications.*

Kwai-Man Luk\*

*For contributions to the development of wideband microstrip-patch antennas and dielectric-resonator antennas*

Hiroshi Matsumoto\*

*For contributions to the understanding of waves in nonlinear plasmas and microwave power transmission.*

Tung Sang Ng

*For contributions to signal processing techniques in spread spectrum communications.*

John William Rockaway\*

*For technical leadership in the development and application of computational techniques for advanced antenna and electromagnetic system analysis.*

Brian C. Wadell

*For contributions to instrumentation applications.*

Tat Soon Yeo

*For contributions to scattering and synthetic-aperture radar.*

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\* evaluated by AP-S Fellows Committee