



The 2007 CAP/DCMMP Brockhouse Medal

UNDER EMBARGO

is awarded to

Sajeev John

The Canadian Association of Physicists (CAP) is pleased to announce that the 2007 CAP/DCMMP Brockhouse Medal is awarded to Sajeev John, University of Toronto, in recognition of .

Prof. Sajeev John is theoretical physicist whose work has originated, driven, and continues to lead the field of Classical Wave Localization and Photonic Band Gap Materials. This fundamental contribution to basic science reshapes the core of our understanding of wave phenomena and, in particular, Maxwell's equations governing electromagnetism. It was realized through the theory of James Clerk Maxwell and later in experiments by Hertz, in the 19th century, that electromagnetic waves propagate. However, it was not until the work of Prof. John in the 1980's and subsequent experiments that it was realized that electromagnetic waves can be localized in three spatial dimensions, similar to electrons in a potential well. His work has impacted not only physics, but also chemistry, engineering, and medicine.

The birth of the field of Classical Wave Localization and Photonic Band Gaps can be traced to a series of papers that Prof. John wrote beginning in the early 1980's. In addition to originating the field, Prof. John has contributed a remarkable and extensive body of leading work over the past 24 years providing the agenda for many aspects of the field of photonic crystals. He has led numerous interdisciplinary collaborations both within and beyond Canada. This has served to bring Canada to the forefront of this burgeoning field. In recognition of his work Prof. John has received numerous awards including the Guggenheim Fellowship (USA), a Humboldt Senior Scientist Award (Germany), the NSERC Brockhouse Canada Prize, and the one-time Ontario's Platinum Medal for Science and Medicine. He is a Fellow of the American Physical Society, the Optical Society of America, and the Royal Society of Canada.

Professor John is also the winner of one of the world's most prestigious awards, the 2001 King Faisal International Prize in Science, which he shared with Nobel Laureate C. N. Yang.

