



Book review

Light Scattering Reviews 2: Remote Sensing and Inverse Problems, A.A. Kokhanovsky (Ed.). Praxis, Chichester, UK (2007). xxiii + 351pp., \$179, Hardbound, ISBN: 978-3-540-30932-1

This book was published as volume 2 of the new Praxis/Springer series “Light Scattering Reviews” edited by A.A. Kokhanovsky. The format of this book series resembles that of the Elsevier series *Progress in Optics* edited by E. Wolf, albeit with a narrower scope and specific emphasis on electromagnetic scattering phenomena.

The monograph includes eight in-depth review chapters contributed by leading experts in various aspects of light scattering and its applications. Part I of the book, titled “Remote Sensing and Radiative Transfer,” includes chapters on solar radiative transfer and global climate modeling (H.W. Barker), remote sensing and radiative properties of cirrus (A.J. Baran), retrieval of cloud optical thickness and effective radius using multispectral remote sensing and accounting for 3D effects (H. Iwabuchi), and Raman lidar remote sensing of geophysical media (A.V. Malinka).

Part II, titled “Inverse Problems,” includes chapters on the linearization of vector radiative transfer (O.P. Hasekamp and J. Landgraph) and derivatives of the radiation field and their application to the solution of inverse problems (V.V. Rosanov et al.).

Part III, titled “Numerical Techniques,” consists of chapters on studies of light scattering by complex particles using the null-field method with discrete sources (T. Wriedt) and radiative transfer in horizontally and vertically inhomogeneous turbid media (O.V. Nikolaeva et al.).

Like the first volume of *Light Scattering Reviews* published in 2006, this one provides a wealth of information presented mostly in a systematic, self-contained, and accessible form. The editor deserves much credit for being able to secure these instructive chapters, whereas the authors should be credited for putting a lot of effort and individual knowledge and expertise into creating very useful and state-of-the-art overviews of research fields undergoing rapid development.

This book will be a valuable addition to any research or university library. Individual professional researchers should also seriously consider buying a copy of the book for personal use despite its nontrivial price.

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