

<<自然介质电磁散射与辐射传输信息>>

图书基本信息

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作者：金亚秋

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## <<自然介质电磁散射与辐射传输信息>>

### 内容概要

《自然介质电磁散射与辐射传输信息(英文版)》作为“自然介质电磁散射与辐射传输信息”的第二卷,选自我2001—2010年期间在国际学术刊物上发表的部分学术论文。其第一卷包括1983—2000年间的工作已由科学出版社在2000年出版。这两卷书包括了我在近30年里在电磁散射、辐射传输与空间微波遥感的主要研究工作。特别在本卷中包括了我作为国家重点基础研究计划973项目“复杂自然环境时空定量信息与融合处理的理论与应用”首席科学家时期我本人发表的一些论文。这些工作包含了极化散射与合成孔径雷达(sar)遥感信息、复杂自然介质矢量辐射传输vrt、星载微波遥感数据验证、目标与环境复合电磁散射建模数值模拟、月球微波遥感五个方面的研究成果。

《自然介质电磁散射与辐射传输信息(英文版)》第一部分建立参数化建模的自然地表极化散射解与极化sar信息理论,形成理论建模、散射辐射模拟、成像模拟、反演重构的微波遥感信息正演模拟与特征反演重构链。

第二部分研究复杂自然介质矢量辐射传输理论(vrt)。

第三部分讨论星载微波遥感数据验证的理论与方法。

第四部分讨论体目标与随机粗糙面共存时复合电磁散射的理论建模与数值计算方法。

第五部分讨论中国探月工程微波探月的理论建模、反演、“嫦娥一号”数据难与雷达成像研究工作。

## 作者简介

金亚秋，1970年毕业于北京大学，1978年中国科学院首批公派出国研究生，1982、1983、1985年分别获美国麻省理工学院（MIT）科学硕士、电气工程师，博士学位。

现为复旦大学信息科学与工程学院教授、波散射与遥感信息教育部重点实验室主任。

国家级有突出贡献的中青年科技专家，上海市劳动模范、国家重点基础研究973项目首席科学家，IEEE Fellow、Electromagnetics Academy Fellow、IEEE Transactions on Geoscience and Remote Sensing副主编。

曾获国家自然科学奖等十多项科技奖励。

研究领域为自然环境中电磁波散射辐射传输与传播、空间遥感与对地监测信息理论与技术、复杂系统中计算电磁学等。

已在国内外发表530多篇学术论文，已出版10部学术专著与文集。

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