



## 复旦大学数学科学学院 数学综合报告会

报告题目：**Babich-like ansatz for three-dimensional point-source Maxwell's equations**

报告人：Prof. Jianliang Qian (Michigan State University, USA)

报告时间：2017-01-04 星期三 9:30-10:30

报告地点：光华东主楼 1801

摘要： We propose a novel Babich-like ansatz consisting of an in finite series of dyadic coefficients and spherical Hankel functions for solving point-source Maxwell's equations in an inhomogeneous medium so as to produce the so-called dyadic Green's function. To verify the feasibility of the proposed ansatz, we truncate the ansatz to keep only the first two terms, and we further develop partial differential equation-based Eulerian approaches to compute the resulting asymptotic solutions. Numerical examples demonstrate that our new ansatz yields a uniform asymptotic solution in the region of space containing a point source but no other caustics.

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