复旦大学数学科学学院
数学综合报告会

报告题目：Asymptotic behavior of solutions to fractional laplacian equations and systems

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报告摘要：

ASYMPTOTIC BEHAVIOR OF SOLUTIONS TO FRACTIONAL LAPLACIAN EQUATIONS AND SYSTEMS

ABSTRACT. In this talk, we mainly concern with positive solutions to the following fractional Laplacian equation

$$(-\Delta)^{\frac{\alpha}{2}} u = u^p,$$

and fractional system

$$\begin{cases} (-\Delta)^{\frac{\alpha}{2}} u &= v^p, \\ (-\Delta)^{\frac{\alpha}{2}} v &= u^q. \end{cases}$$

Under some assumption on the exponent p and q, we show the boundary asymptotic behavior of the solutions for both bounded and unbounded domain.

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