报告题目：Nonlocal-to-Local Convergence of the Cahn-Hilliard Equation and its Operator

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报告时间：2026 年 3 月 24 日星期二，10：00—11：00

报告地点：光华楼东主楼 1801 室

报告摘要：We prove convergence of a sequence of weak solutions to the nonlocal Cahn-Hilliard equation to the weak solution to the corresponding local Cahn-Hilliard equation. The analysis is done in the case of sufficiently smooth bounded domains with Neumann boundary condition and a $W^{1,1}$-kernel. The proof is based on an energy method. Additionally, we prove the strong L^p-convergence of the nonlocal operator to a local differential operator together with a rate of convergence. The analysis also includes more singular kernels.

References

[1] H. Abels, C. Hurm. Strong Nonlocal-to-Local Convergence of the Cahn-Hilliard Equation and its Operator. J. Differential Equations, 402: 593-624, 2024.

[2] H. Abels, C. Hurm, P. Knopf. Nonlocal-to-local L^p-convergence of convolution operators with singular, anisotropic kernels. (2026).

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