

MIMS現象数理カフェセミナー

日時：2021年6月21日(月) (13:30 – 14:10)

場所：今年度はZoomでのリモート開催となります

Vectorial prescribed mean curvature problem

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Abstract : Mean curvature is a value that appears not only in mathematics, but also in various fields such as fluid mechanics and materials engineering. The prescribed mean curvature problem is the problem of finding a surface whose mean curvature is equal to a given function and it has been studied by numerous researchers in the case that a given function depends on the position of the space and surface. On the other hand, if a given function depends on the first derivative of a surface, the problem has been little studied.

In this talk, I consider the existence of a surface whose mean curvature vector coincides with the normal component of a given vector field. Furthermore, I will explain how to construct the solution by the Allen-Cahn equation.



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