

# Optimal regularity for a two-phase free boundary problem ruled by the infinity Laplacian

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In this talk we consider a non-variational two-phase free boundary problem ruled by the infinity Laplacian. Our main result states that normalized viscosity solutions are universally locally Lipschitz continuous, which is the optimal regularity for the problem. We make a new use of the Ishii-Lions' method, which works as a surrogate for the lack of a monotonicity formula and is bound to be applicable in related problems.