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CONSTRUCTION OF WEAK SOLUTIONS OF A WEIGHTED INVERSE MEAN CURVATURE FLOW

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Abstract. The inverse mean curvature flow is a geometric evolution equation related to general relativity. In this paper, we consider a weighted version of the inverse mean curvature flow and prove the existence of its weak solution formulated by a level-set method. We construct the solution by approximation by weighted p-harmonic functions analogue to the method introduced by R.Moser.

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