FINITENESS OF ENTROPY FOR GRANULAR MEDIA EQUATIONS

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Abstract: The current work deals with the granular media equation whose probabilistic interpretation is the McKean–Vlasov diffusion. It is well known that the Laplacian provides a regularization of the solution. Indeed, for any $t > 0$, the solution is absolutely continuous with respect to the Lebesgue measure. It has also been proved that all the moments are bounded for positive t. However, the finiteness of the entropy of the solution is a new result which will be presented here.

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