

DEVELOPMENT OF TRUNCATED INVISCID TURBULENCE AND THE FPU-PROBLEM

PROJECT AIM

To study the similarity between the development of truncated inviscid turbulence and the FPU-problem.

PROGRESS

A study was made of the possible similarity between the development of truncated, inviscid turbulence and the FPU-problem. For the case of a constant time scale, which resembles the FPU-problem, a significant increase in the time to achieve equipartition was found when the initial energy was decreased. At first a few modes were generated and only rather late in the spectral development other modes appear and equipartition was established.

DISSERTATIONS

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SCIENTIFIC PUBLICATIONS

1. G. Ooms and B.J. Boersma, The development of truncated inviscid turbulence the FPU-problem, Chaos 18, 043124 (2008).

PROJECT LEADERS

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RESEARCH THEME

Complex dynamics of fluids

PARTICIPANTS

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COOPERATIONS

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FUNDED

TUD

1st 100% 2nd - 3rd -

START OF THE PROJECT

2008

INFORMATION

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