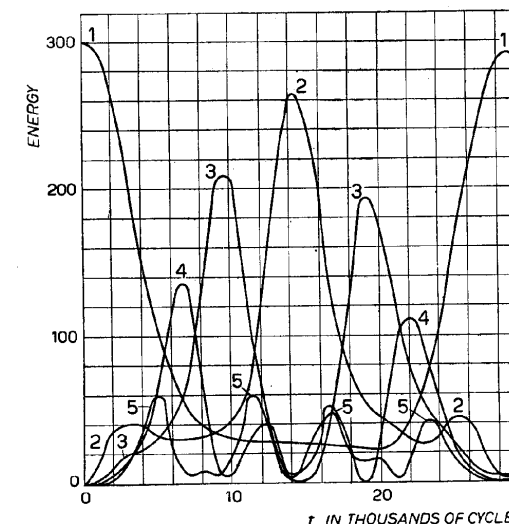




Workshop
FPU 50 years since FPU
 or
FPU 50 anni da FPU

**Physics Department of the University "La Sapienza" of Roma
 Roma, 7 - 8 May, 2004**



May 7, Morning – Aula E. Amaldi

9 AM: Antonio Giorgilli: U. Milano 2 (Bicocca)
"Metastable states in the Fermi-Pasta-Ulam system"

10 AM: Luigi Galgani: U. Milano 1
"The FPU problem and the classical theory of specific heats"

11:30-12 AM: *Short Communications* Susanna Terracini: U. Milano Bicocca
"New analytic result about the periodic problem fro FPU-chains"

12:00 AM- 1:30 PM: Programma per gli studenti di Fisica – Aula del Seminario

"Una Lezione introduttiva ai problemi della Meccanica Statistica alla luce dell'esperimento di Fermi-Pasta-Ulam"
 L. Galgani: U. Milano 1
"Il problema di Fermi-Pasta-Ulam: un intreccio tra teoria dei sistemi dinamici, fondamenti della meccanica statistica e relazioni tra meccanica classica e meccanica quantistica"

Afternoon – Aula M. Conversi

2 PM: Gianni Arioli: U. Milano Politecnico
"New methods for multi-mode periodic solutions for the Fermi-Pasta-Ulam model"

3 PM: Karsten Matthies: Freie U., Berlin
"Atomic-scale localization of high-energy solitary waves for Lennard-Jones type interactions"

4:00 PM: Roberto Artuso: U. dell'Insubria (cioè Como)
"Weak chaos and anomalous transport"

5:30 PM: *Communications by participants*

5:30 PM: Stefano Olla: CEREMADE, Paris
"Heat transport and non-equilibrium fluctuations for a chain of oscillators with random interaction"

6:00 PM: Antonio Ponno: U. Milano 1
"Scaling laws of the energy cascade in FPU models"

May 8, Morning – Aula M. Conversi

9:00 AM: Roberto Livi: U. Firenze
"Heat transport and the FPU model"

10:00 AM: Gero Friesecke: University of Warwick / TU Munich
"Long-time stability of FPU solitary waves and recurrence of Fourier spectrum"

11:15 AM: Dario Bambusi: U. Milano 1
"Some Local Normal Form Results for FPU Chains in the Thermodynamic Limit"

12:15 AM: *Short Communications*
 Yannick Sire: INSA-Toulouse
"Travelling breathers with exponentially small tails in a chain of nonlinear oscillators"

Afternoon – Aula M. Conversi

14:30 PM: Stefano Ruffo: U. Firenze
"Forced-damped FPU lattices"

15:30 PM: Angelo Vulpiani: U. Roma 1
"Diffusion: from stochastic processes to chaos and beyond"

16:30 PM: Giancarlo Benettin: U. Padova
"Preliminary results on a two-dimensional version of the FPU model"

Talks: 1 hour each including discussion; Short Communications .50 hours each (.50=one half).
 At least 1 extra hour per day will be reserved for extra talks.

Organizing Committee

*Giuseppe Benfatto
 Giancarlo Benettin
 Giovanni Gallavotti
 Guido Gentile
 Antonio Giorgilli
 Roberto Livi
 Vieri Mastropietro*

Sponsored by the three Universities of Roma and by the University of Milano 2 and of Padova

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