ISTITUTO NAZIONALE DI ALTA MATEMATICA (INdAM)

Gruppo Nazionale per la Fisica Matematica (GNFM)

XLVII Summer School on Mathematical Physics

Ravello 12-24 September 2022

Courses:

Giorgio Parisi (Roma) "Spin glasses and complexity" **1a** First Week (6 lectures)

Benoit Perthame

(Paris) "Adaptive evolution and concentrations in nonlocal PDE" **2a** First Week (6 lectures)

Paola Goatin (Sophia Antopolis)

Christophe Mourrat (Lyon) "A PDE approach to meanfield disordered systems" 1b Second Week (6 lectures)

Maria Carmela Lombardo

(Palermo) "Coherent structures in reaction-diffusion systems" **2b** Second Week (6 lectures)

Axel Klar (Kaiserslautern)

The aim of the school is to give introductive lectures by internetional experts in the fields Mathematical Physics and Applied Mathematics. The school is mainly addressed to young researchers.

"Macroscopic traffic flow models on networks" **3a** First Week (6 lectures)

Gabriella Pinzari (Padova) "Applications of normal form in celestial mechanics" 4a First Week (6 lectures) "Kinetic models for vehicular traffic and related macroscopic models" **3b** Second Week (6 lectures)

Michela Procesi

(Roma)"Recursive solution inHamiltonian PDEs"**4b** Second Week (6 lectures)

COR Fondazione Villa Rufolo Festival Il Direttore della scuola: Prof. **T. Ruggeri** Il Direttore del GNFM:

Il Direttore del GNFM: Prof. **G. Saccomandi**