UNIVERSITÁ DEL PIEMONTE ORIENTALE
DIPARTIMENTO DI SCIENZE E INNOVAZIONE TECNOLOGICA

EVENTI DiSIT

Seminari | Seminars

Mercoledì 22-05-2024

ore 11:00-13:00

Symmetries of fundamental equations of quantum mechanics Integrable systems with position dependent mass I &II

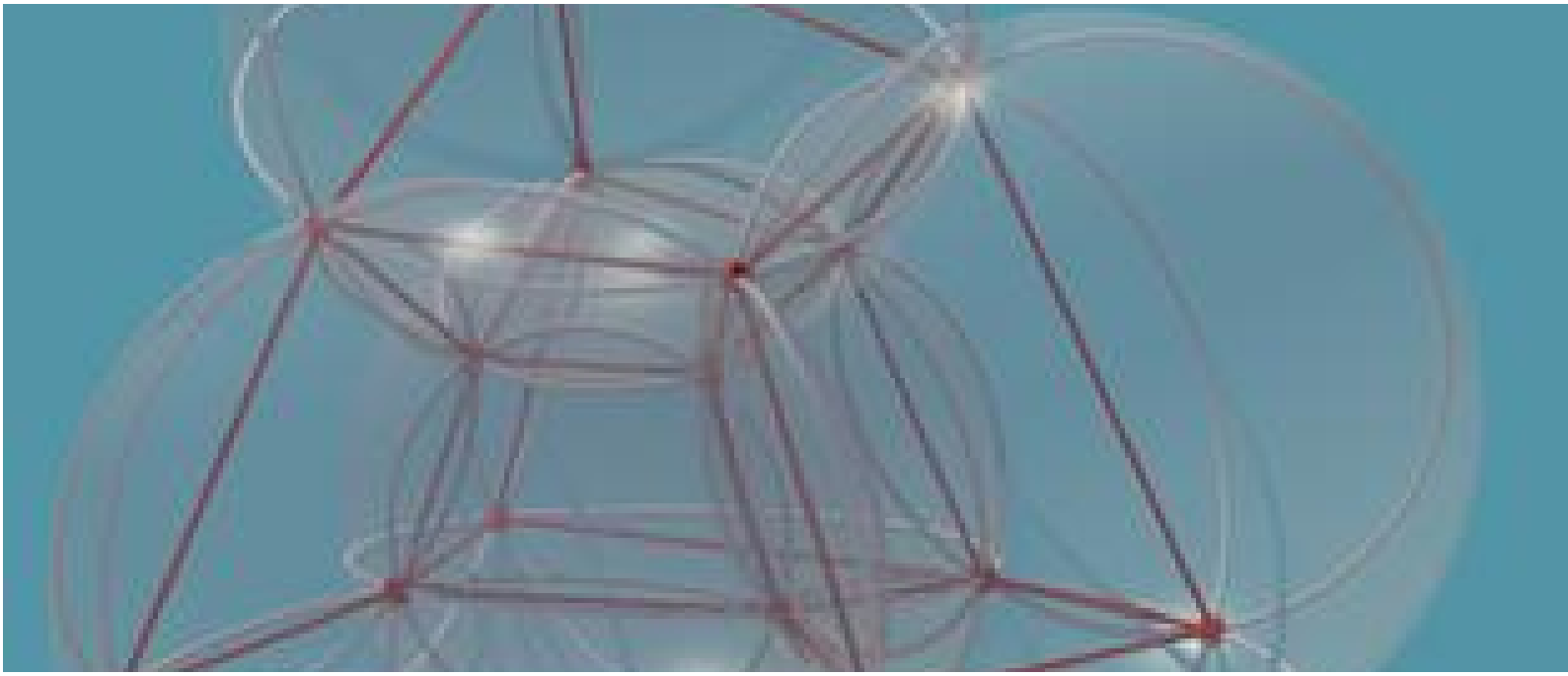
ore 16:00-18:00

Symmetries of fundamental equations of quantum mechanics Integrable systems with position dependent mass III &IV

Aula 303

Prof. Anatoly Nikitin

Dipartimento di Ricerca Applicata dell'Istituto di Matematica della NASU, la National Academy of Scienze of Ucraine di Kiev



Symmetries of fundamental equations of quantum mechanics
Integrable systems with position dependent mass I &II
Higher symmetries of quantum mechanical systems with position dependent mass (PDM) will be discussed. Such systems are important objects of modern physics. They are applied for modeling of condensed-matter systems, namely, semiconductors, quantum liquids and metal clusters, quantum wells, wires and dots and many, many others. We will start discussing quantum mechanical PDM systems admitting second order integrals of motion. Such systems including two spatial variables are well studied, but the much more interesting 3d systems were classified only partially.

Symmetries of fundamental equations of quantum mechanics
Integrable systems with position dependent mass III &IV
We will continue the study of quantum mechanical systems with position dependent mass (PDM) and present the last achievements in the classification of 3d PDM systems admitting first and second order integrals of motion. The classical Lie symmetries of such systems will be represented also.

EVENTO APERTO A:
Docenti | Teachers, Borsisti | Research Fellows, Assegnisti | Postdoctoral researchers, Esterni UNIUPO | external UNIUPO people
SEMINARIO IN LINGUA: inglese