

UNIVERSITÀ
DEGLI STUDI
DI PADOVA

Dipartimento di *Matematica*
Scuola di dottorato in *Scienze Matematiche*

COLLOQUIA PATAVINA

A colloquium series in mathematics and computer science

Martedì 28 febbraio 2012 – ore 16.00

Aula 1A/150 – Torre Archimede - via Trieste, 63 - Padova

G rard Meurant

Former Research Director, CEA (Commissariat   l'Energie Atomique), France
Visiting Professor Fondazione Cassa di Risparmio di Padova e Rovigo

Lectio Magistralis:

“History of Supercomputers: past, present and future”

In this lecture we will describe how the improvement in computing speed and amount of memory of supercomputers has influenced the numerical simulation of complex physical phenomenon. Conversely the need to do more and more precise and reliable computations has had an impact on the computer development, in architecture, processors, storage of data and visualization tools.

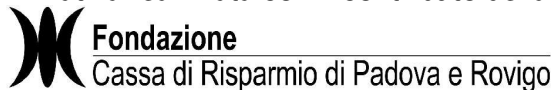
Supercomputers are commonly defined as the most powerful computers at a given time. Today all these machines are parallel computers with several thousands of processors. We will describe the history of supercomputers since the 1950's and show what was the impact on the numerical simulations that were made possible by those machines.

Some of the applications for which progresses were essential are related to everyday's life: weather forecasting, design of new planes or new cars and even the design of new processors and computers. We will describe some of these applications and the improvements that have been obtained.

Finally we will try to give some insights about the future of supercomputers and numerical simulation

No special mathematical background is necessary to follow this lecture and it will be accessible to a broad public community.

Iniziativa realizzata con il contributo della



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