ICM 2006

CLOSING ROUND TABLE

Are pure and applied mathematics drifting apart?

Ronald Coifman
The opportunity for mathematics in the digital age

- The complexities of digital data being generated by the scientist and information analyst are overwhelming.

- The mathematician role is to help discover the language, enabling organization and "geometric structures" underlying massive complexity.
• Mathematics needs to be invented. We are at a pre Newtonian stage in many fields, such as biology, social science, neurology finance etc.

• We see the emergence of many empirical methods in machine learning, bioinformatics, computer science who are quite successful, why?