

Mathematical Modeling in Medicine, Sports, and Technology

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Abstract: Mathematical models are enabling advances in increasingly complex areas of engineering, technology and life sciences. Recent developments in mathematical and numerical modeling have opened the way to progress in modeling such complex systems as the human circulatory system and the environmental system. Professor Quarteroni leads a team which has harnessed mathematical modeling to design improved surgical interventions and to optimize the design of the twice winning America's cup yacht Alinghi. He will talk about this work, and their efforts to confront some of the great computational challenges that face us.

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