Differential equations in robotics, graphics and virtual reality (D. Pai & D. Stewart)

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Differential equations arise in a number of different aspects of robotics, graphics and virtual reality. One is in the realistic simulation of mechanical systems. This is a particularly difficult area if contacts are made and broken, but lately, strides have been made in the ability to simulate and understand these systems. Another area of recent work is real-time simulation of deformation and vibration, which is important for graphics, haptics, and auditory displays. This minisymposium will look at how differential equations (and their bretheren) can be used for these systems.