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Title: Programación paralela para motores físicos de juegos

Abstract:

A physic engine is a computer program that simulates Newtonian physics models, using variables such as mass, velocity, friction and wind resistance. It can simulate and predict effects under different conditions that would approximate what happens in real life.

The evolution of game industry has been motivated by the gamers' demand for more realistic environments to such a point that the complexity of real-time physical simulation far exceeds the capabilities of modern uncore microprocessors. That is why the game industry demands more and more accuracy simulations on a massive scale in order to increase realism.

Taking this into account, we pretend to build a fully parallelized solid-rigid, impulse-based physic engine for real-time applications, optimized for multi-core architectures.

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