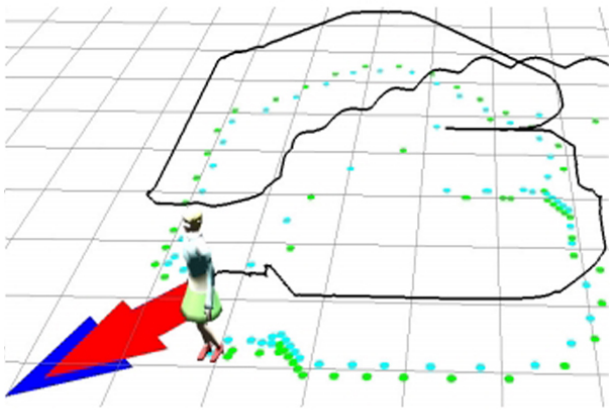


Avatar Locomotion in Crowd Simulation

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This paper presents an Animation Planning Mediator (APM) designed to synthesize animations efficiently for virtual characters in real time crowd simulation. From a set of animation clips, the APM selects the most appropriate and modifies the skeletal configuration of each character to satisfy desired constraints (e.g. eliminating foot-sliding or restricting upper body torsion), while still providing natural looking animations. We use a hardware accelerated character animation library to blend animations

increasing the number of possible locomotion types. The APM allows the crowd simulation module to maintain control of path planning, collision avoidance and response. A key advantage of our approach is that the APM can be integrated with any crowd simulator working in continuous space. We show visual results achieved in real time for several hundreds of agents, as well as the quantitative accuracy.