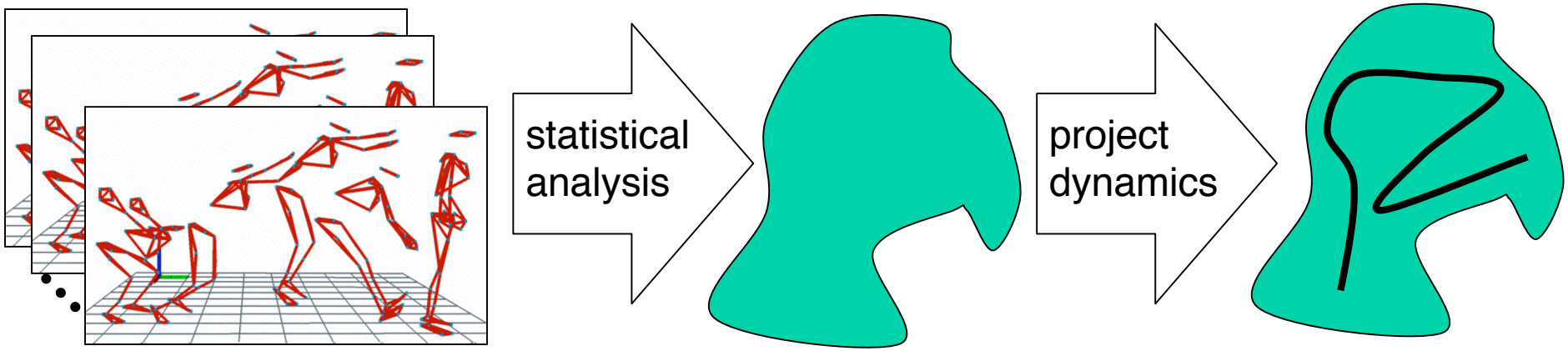
MIT2001-08: Model Reduction for Human and Animal Locomotion

Jovan Popovic

Project Overview



observed motion in high-dimensional state space

reduced state space

simple motion model

Applications

Transformation of Motion-Captured Data

Motion Synthesis of Human and Animal Motion

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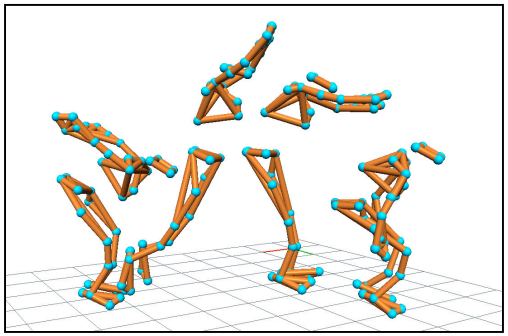
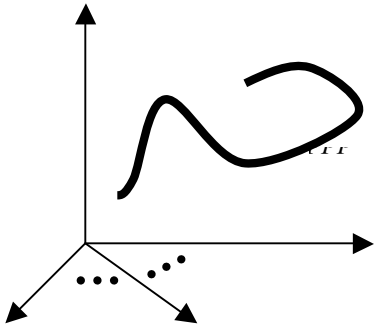
Progress Through December 2002

Transformation of Motion-Capture Data

captured motion



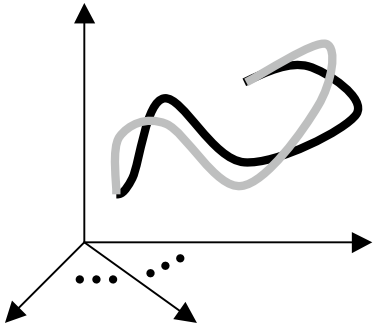
fit captured motion



reduced state space

transform in reduced space

transformed motion



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Research Plan for the Next Six Months

Jan-Feb	Linked rigid-body dynamics
Mar	Compare results of lumped-mass and linked rigid-body dynamics
Apr	Revise lumped-mass implementation
May	Combine model reduction and linked rigid-body dynamics
Jun	Evaluate lumped-mass and rigid-body dynamics on high-dimensional motions