Tuesday 1-27-04

Next Tuesday: I/K!
Thursday: Smoothing

Coordinate descent \(\rightarrow\) machine learning technique
EM

Skeleton/Skinning: Can we get away without bones at all and just move the vertices?

PCA \(\rightarrow\) model analysis on hand motion

Motion Synthesis:

Paper: Interactive Control of Avatars ... (#?)
- links hierarchy
- path of frames
- interfaces
- rough ground

Motion Graphs Paper
- lots of ind. motion clips, cut & rejoin into novel clips (build motion graphs)

Graph pruning graph?
- to remove dead ends?

Motion graphs \(\rightarrow\) local search!
- Ok, okay \(\rightarrow\) path search ... don't care about dead ends
- Method causal?
  - in graphs, once you head into a dead end
    can't go back

(Notion paper)
- Similarity
- Local search
  - we do when driving a character, real time constraints
    motion

- Real life is not a path search?
  - sometimes, motion
  - how is future chosen?

- Group Together Motion
  - separate motion clips
    - joined at "common frames"
    - "hubs" chosen then cleanup

- Not too realistic (do we always come back to
  common frame?)

- Lots of hubs or few hubs?
  - lots so we don't see same thing over
    again
  - but graph complex

- How about traversing the graph - interface?
  - want a certain "kick" ... to get there
    may not be intuitive

Kick ok in the head?
- Method causal?
  - In graphs, once you head into a dead end, can't go back.

  (Notion paper)
  - Similarity
  - Local search
    - As we do when driving a car, we're adjusting our motion.
  - Real life is not a path search?
    - Sometime makes motion
    - How is future chosen?

  Snap together motion
  - Separate motion clips
    - Joint at "common frames"
    - "Hubs" chosen then cleanup

  - Not too realistic (do we always come back to common frame?)

  - Lots of hubs or few hubs?
    - Lots so we don't see same thing over again
    - But graph complex

  - How about traversing the graph interface?
    - Want a certain kick ... to get there, may not be intuitive.

Kick ok in the head?