

Eksperiment

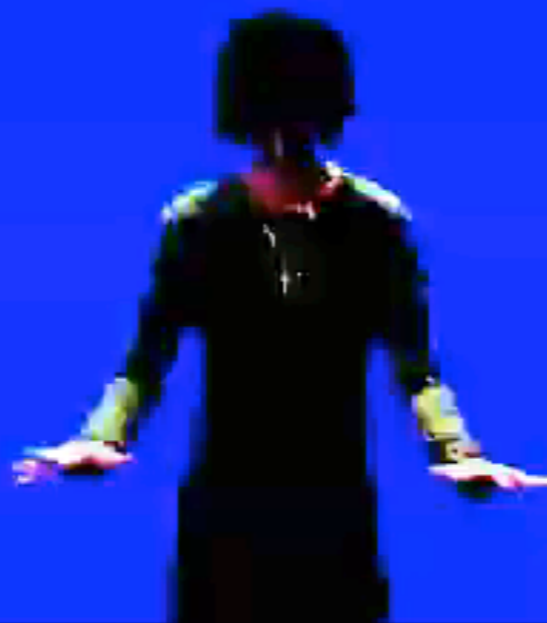
Alexander Refsum Jensenius
MUS2006 V2013



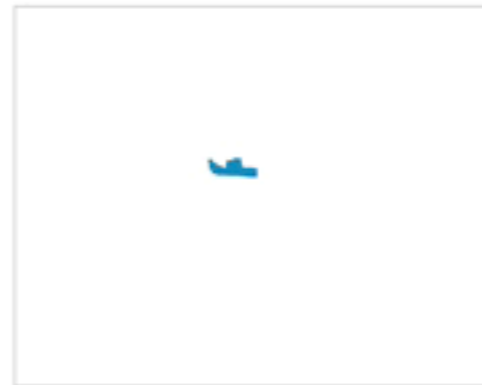
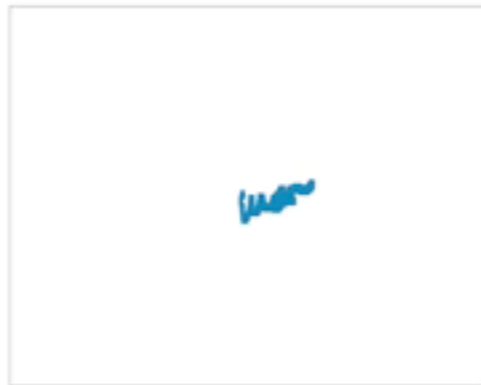
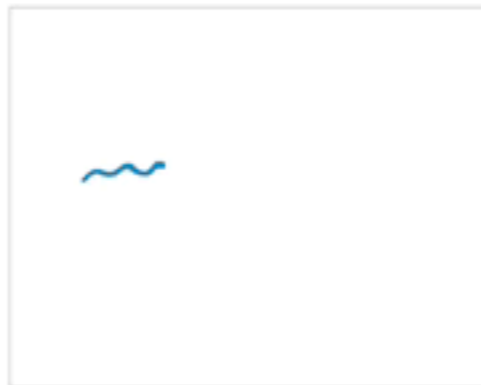
forskning på sansere?

observasjon

eksperiment







eksperiment



observasjon

Eksperimentdesign



Teste hypotese

Tema Bevegelse til tonehøydeforandring

Forskningsspørsmål Beveger man hånden opp eller ned hvis tonehøyden går opp eller ned?

Hypotese Man beveger hånden oppover hvis tonehøyden går oppover

Komparativ

Tema Bevegelse til tonehøydeforandring

Forskningsspørsmål Er det forskjell på musikere og ikke-musikere i forhold til om de beveger hånden opp eller ned ved tonehøydeforandring?

Hypotese Man beveger hånden oppover hvis tonehøyden går oppover

Registrere data

Spørreskjema

Bevegelsessporing

Lydopptak

Videoopptak

Intervju

...

Pre-prosessering

Analyse

Kvalitativ

Kvantitativ

Kvantitativ

Variasjon

Systematisk

Tilfeldig

Klassisk testteori:

$$X = T + e$$

X = observert verdi

T = reell verdi

e = målingsfeil

Statistikk

antall	count
minimum	min
maksimum	max
median	median
vanligst	mode
gjennomsnitt	average
standardavvik	stdev

117

117

117

118

120

120

122

124

124

125

count 10

min 117

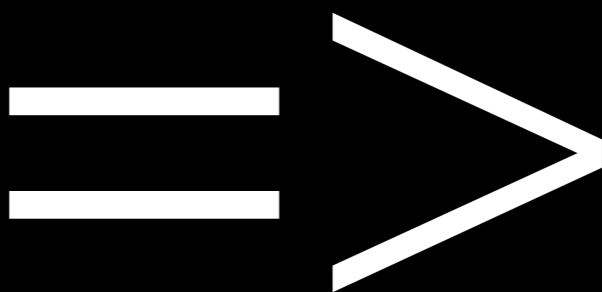
max 125

median 120

mode 117

average 120.78

stdev 3.11



Micromovements

human standstill

The image shows a professional motion capture (mocap) studio. The room has a light-colored wooden floor and black walls. A complex rig of cameras and lights is suspended from the ceiling. The rig consists of several horizontal bars with various cameras and lights attached. The cameras are positioned to capture movement in the room. The lights are used to illuminate the scene. The overall atmosphere is technical and professional.

fourMs mocap lab

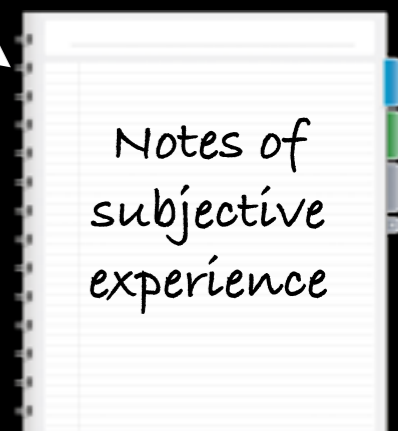
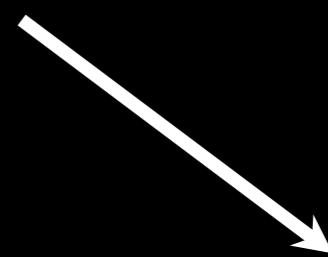
environmental sound
synthesised musical sound
recorded music



motion
capture



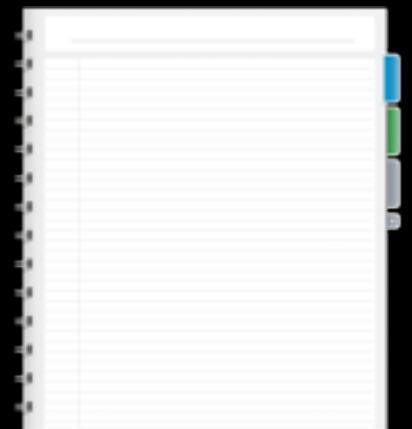
video

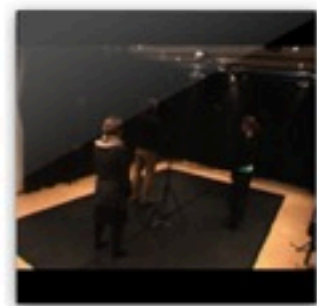


Notes of
subjective
experience

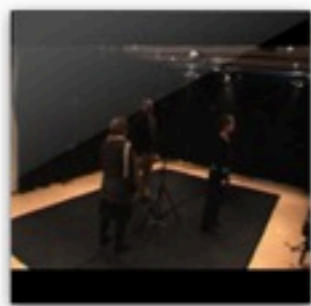


Qualitative + Quantitative





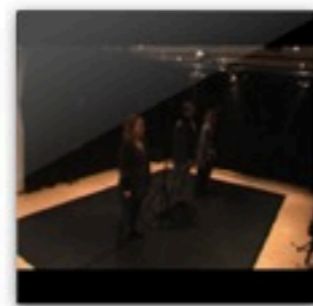
2sverm0001_video3.avi.mp4
10:00



2sverm0002_video3.avi.mp4
10:00



2sverm0003_video3.avi.mp4
10:00



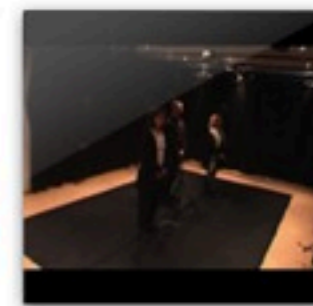
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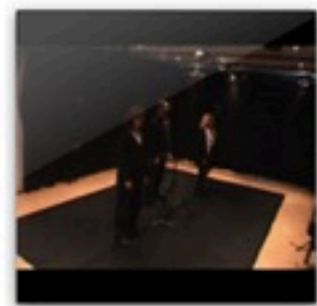
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2sverm0009_video3.avi.mp4
10:00



2sverm0010_video3.avi.mp4
10:00



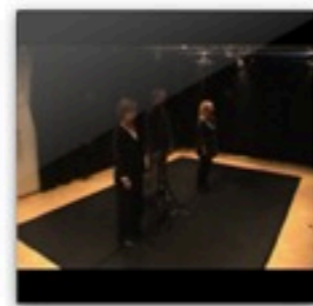
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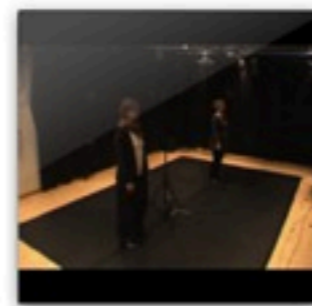
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2sverm0014_video3.avi.mp4
10:00



2sverm0015_video3.avi.mp4
10:00



2sverm0016_video3.avi.mp4
10:59



2sverm0017_video3.avi.mp4
15:00



2sverm0018_video3.avi.mp4
10:00



2sverm0020_video3.avi.mp4
10:00



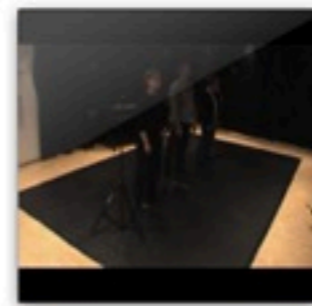
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2sverm0023_video3.avi.mp4
10:00



2sverm0024_video3.avi.mp4
10:00



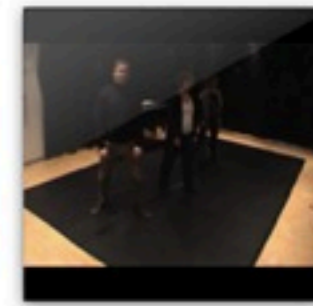
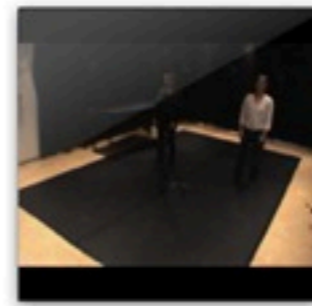
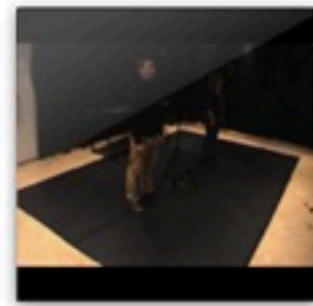
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03:00

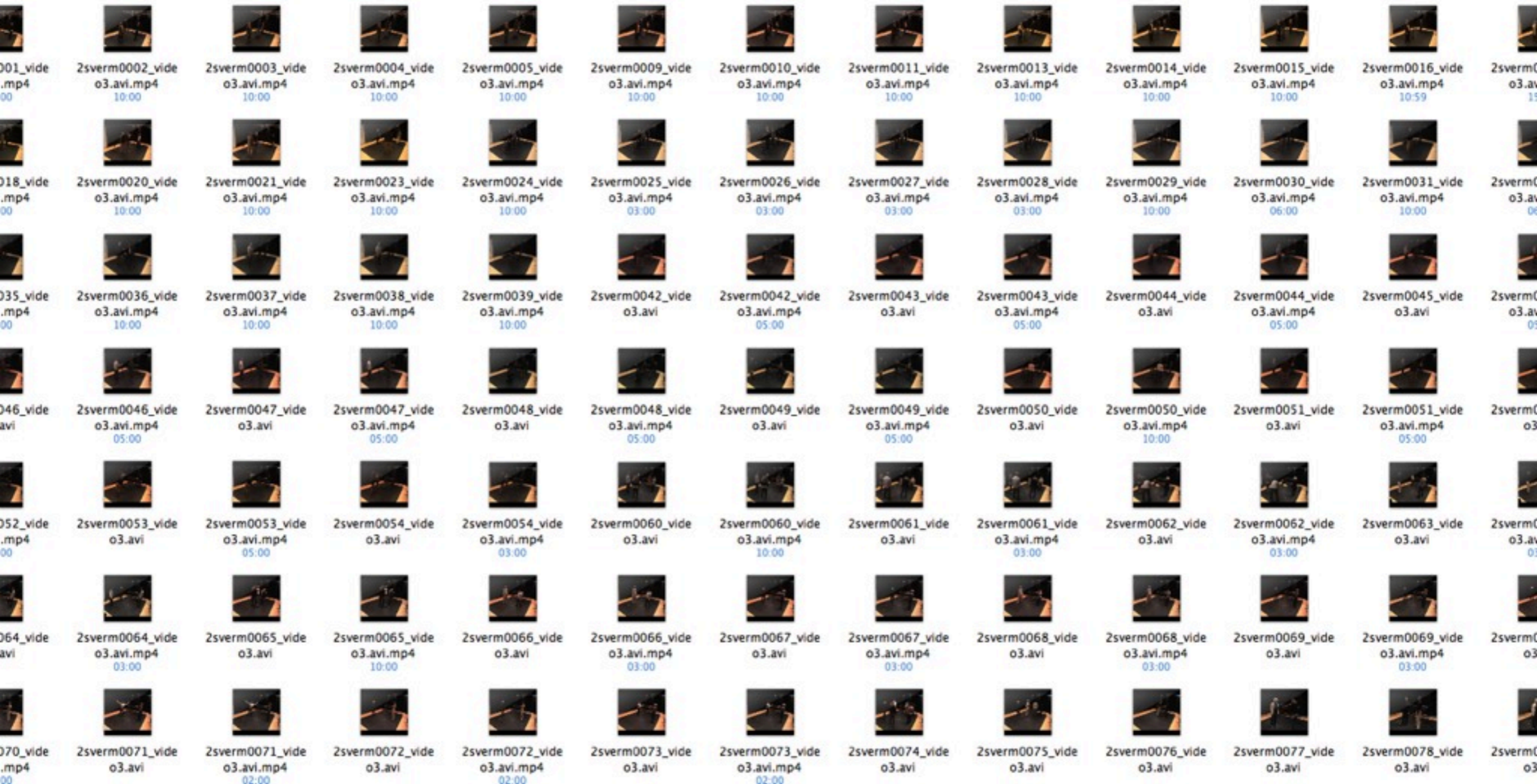


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03:00



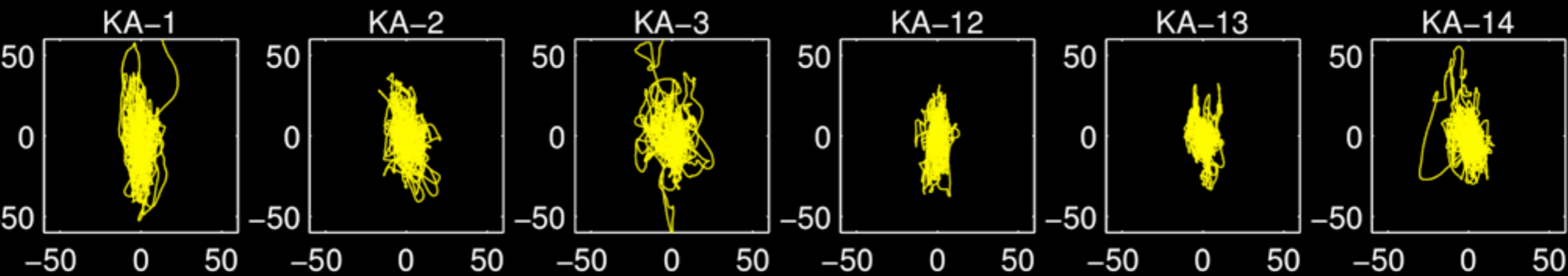
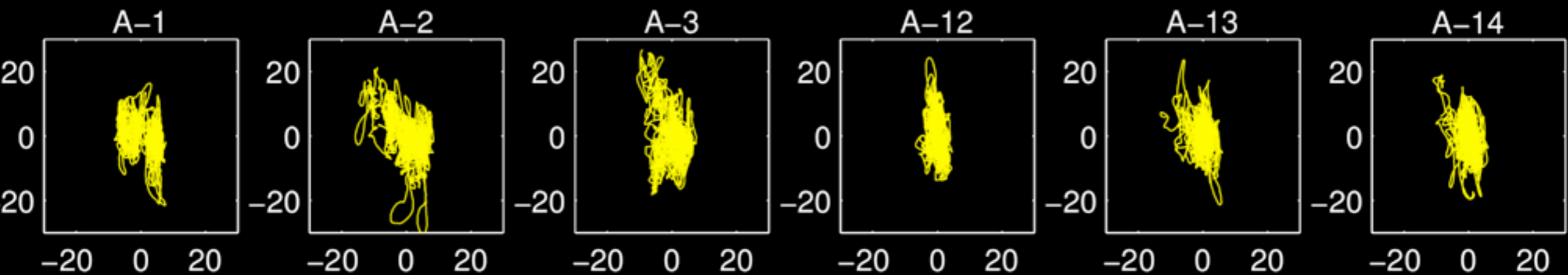
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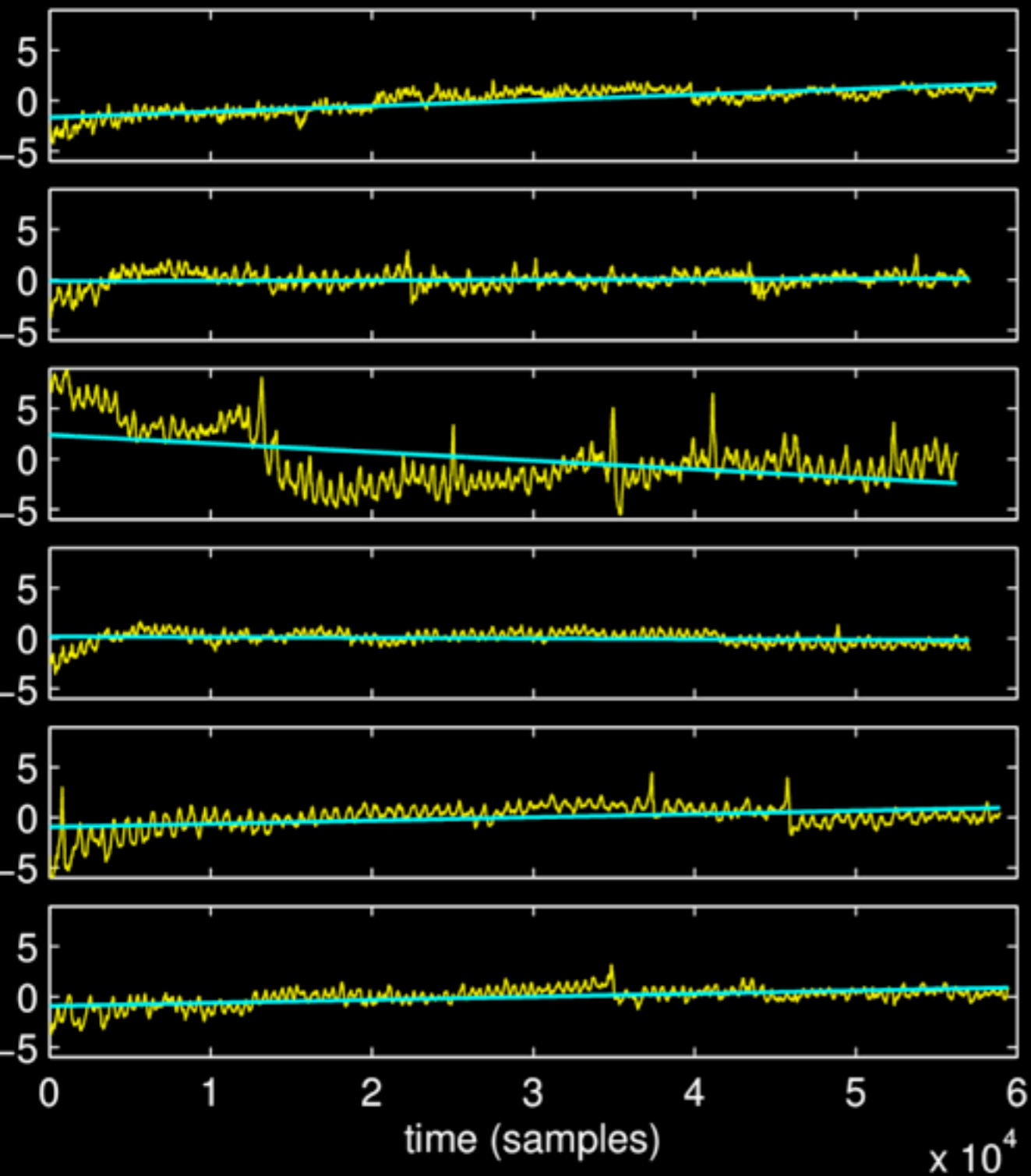
50 + 100 recordings

preliminary results

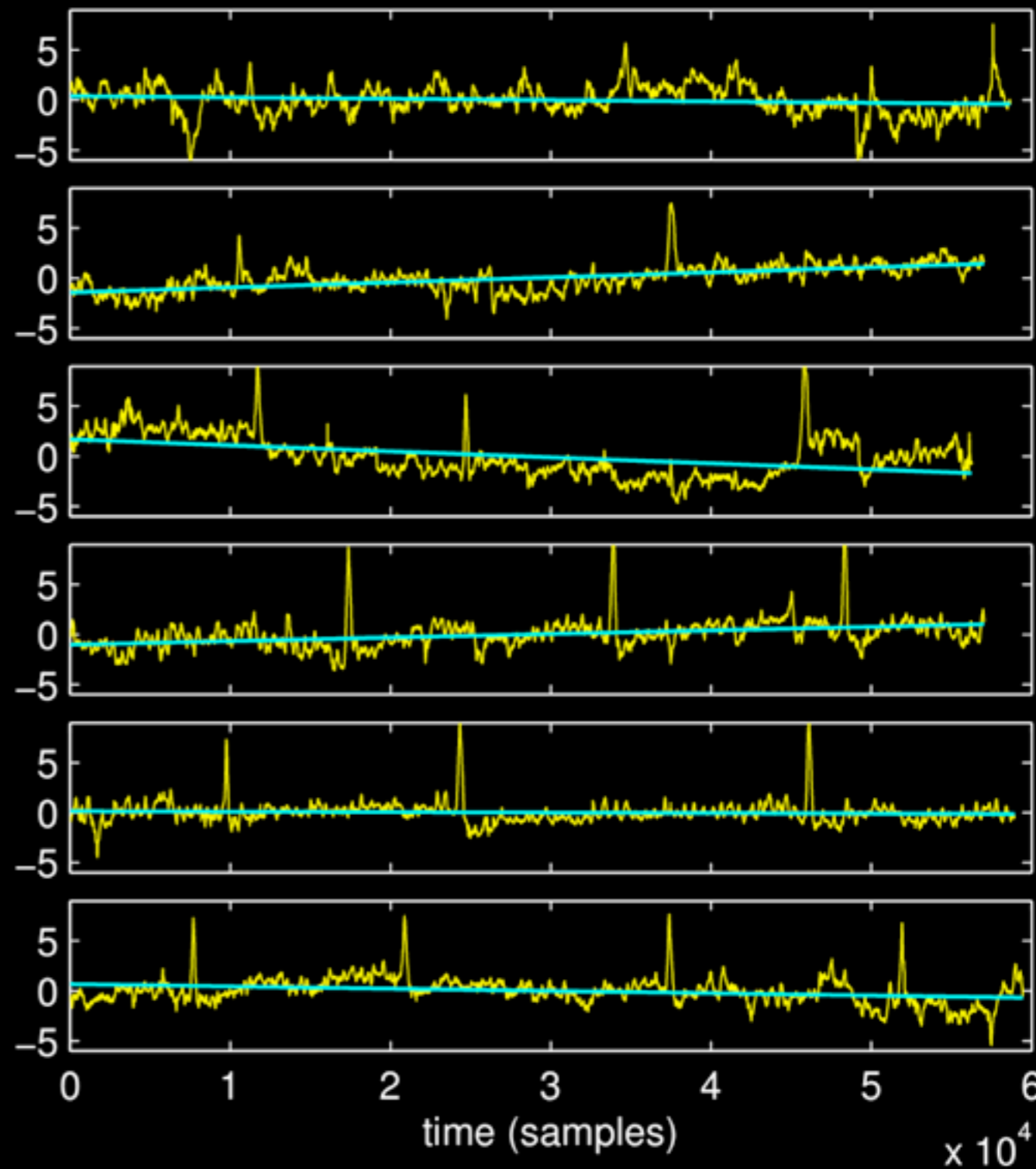


Person-specific movement patterns

A-C7



KA-C7

**Micro**

<0.5s

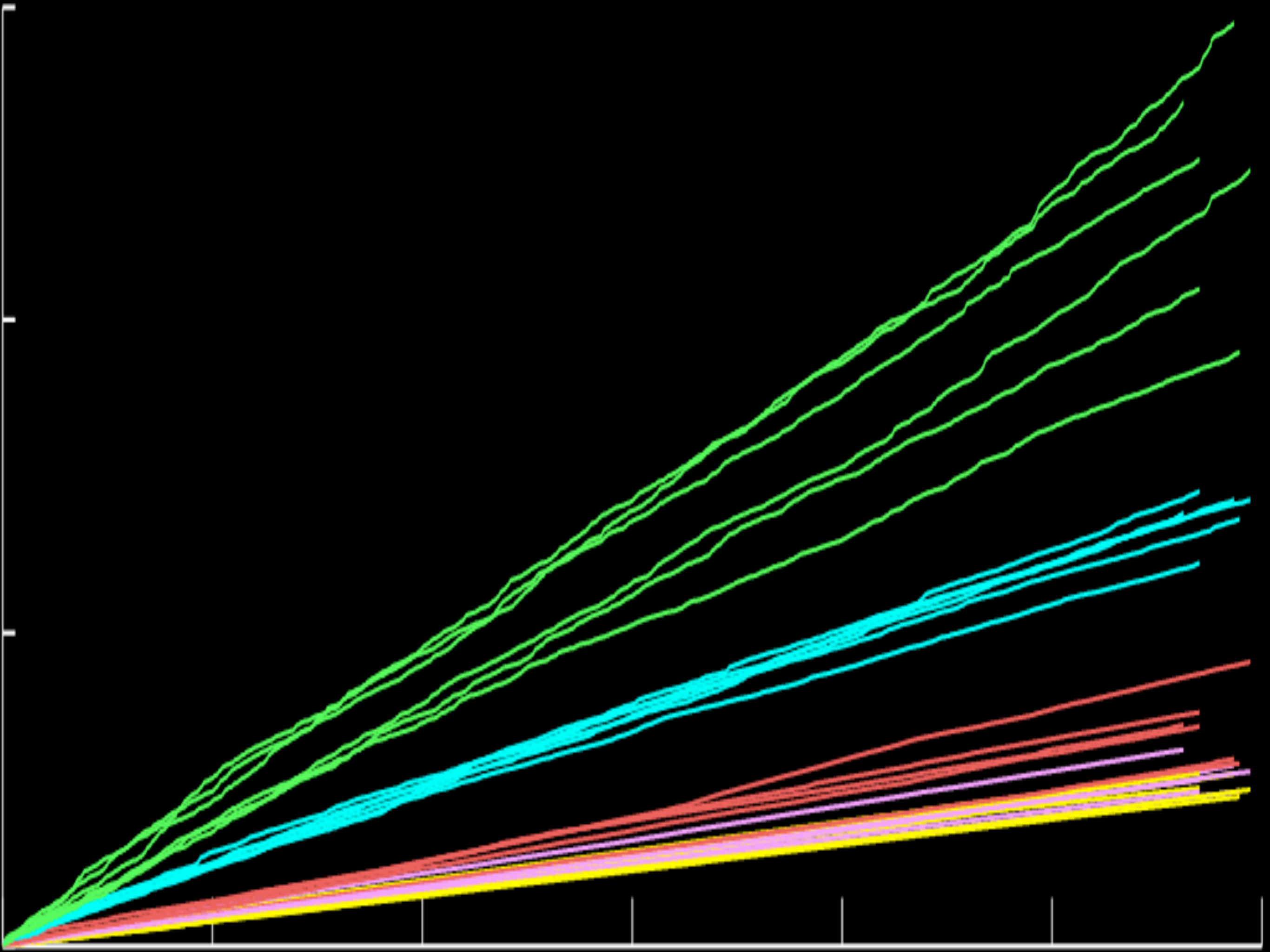
Meso

0.5-5s

Macro

>5s

Remarkably similar over time



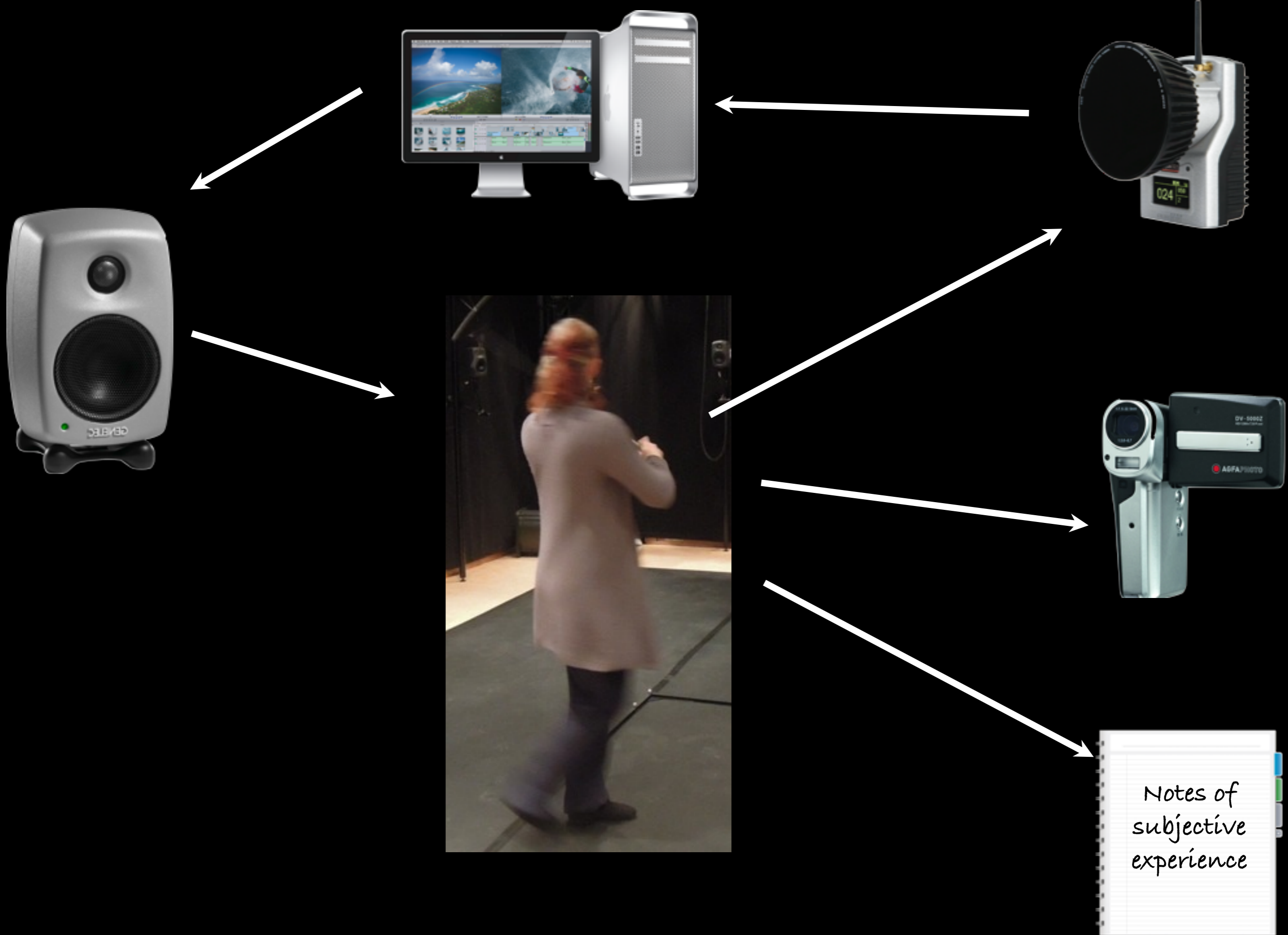
sound > movement

movement > sound

microsound > micromovement

micromovement > microsound









Movement rehabilitation through interactive music

