

Reactive Statistical Mapping: Towards the Sketching of Performative Control with Data

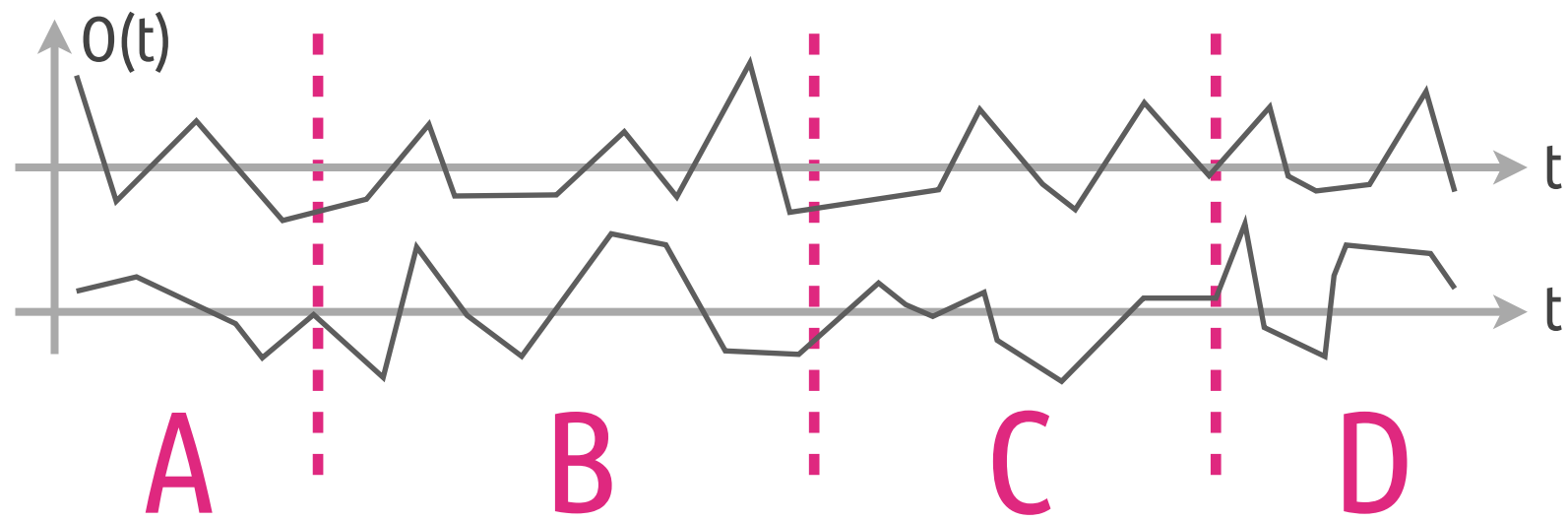
eNTERFACE 2013 Summer Workshop on Multimodal Interfaces

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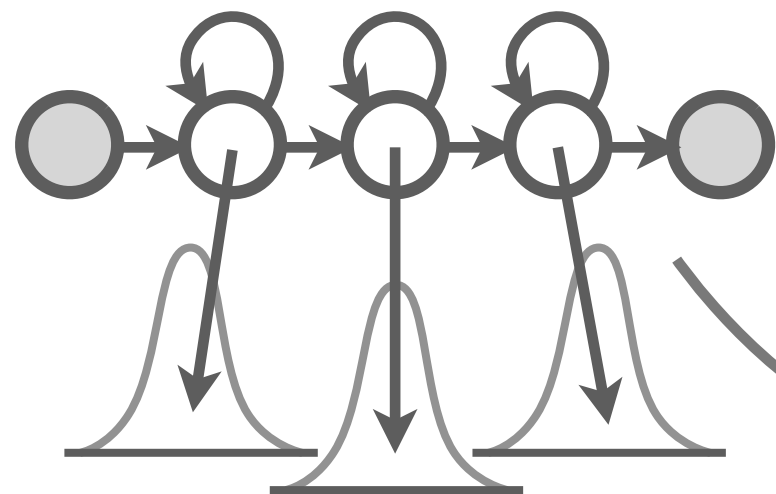


how do we do mapping
with statistical models?

1) label-based mapping



A-B+C@1_0



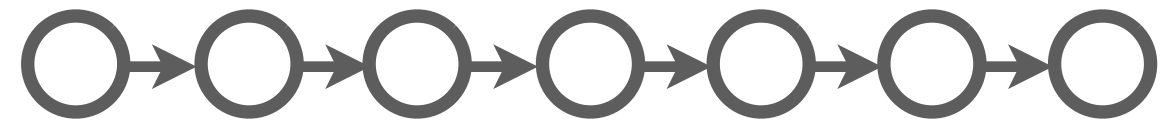
models

A-B+C@1_0
B-C+D@0_1

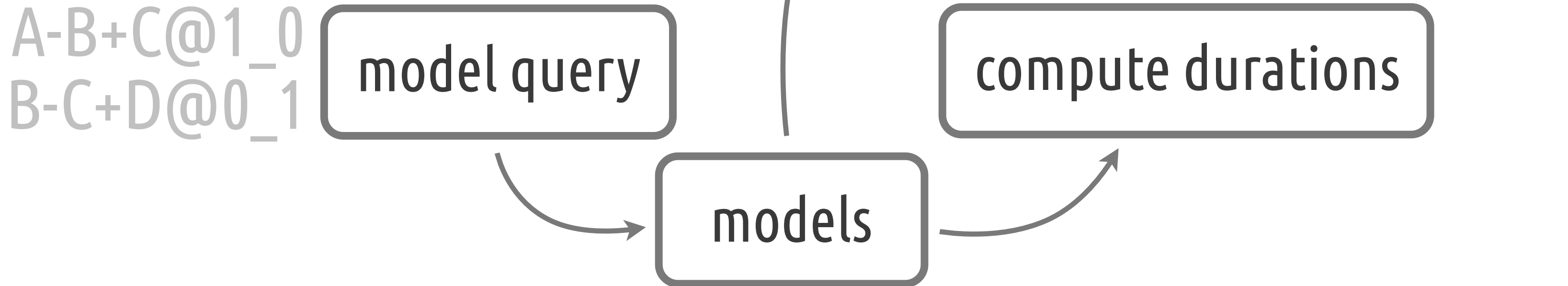
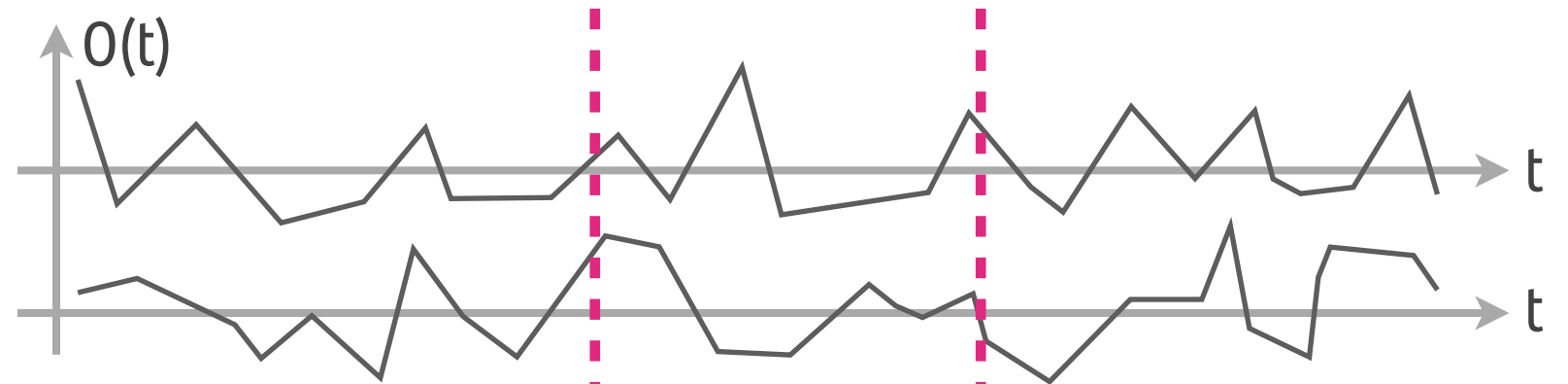
model query

models

compute durations

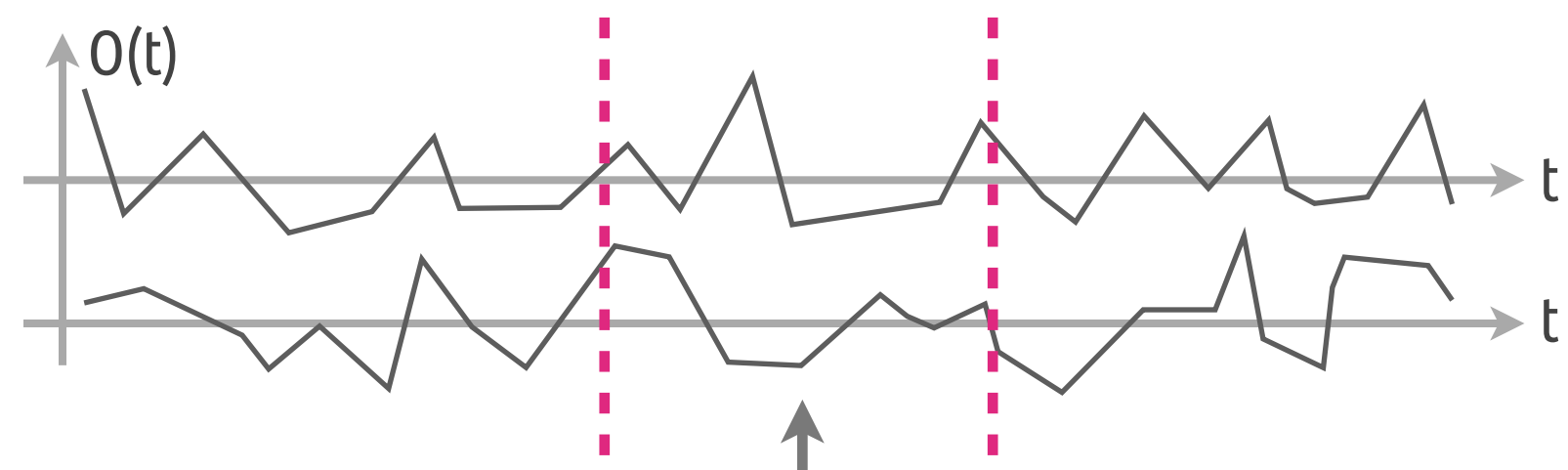


compute features



case study: realtime
typing-to-speech synthesis

2) model-based mapping

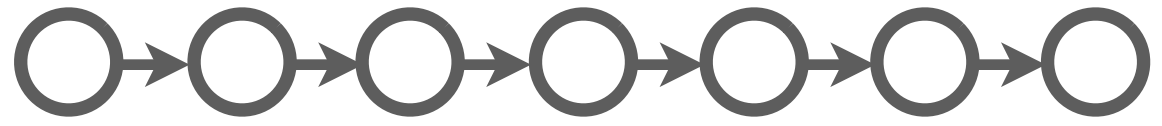


interface

model control

compute features

mage

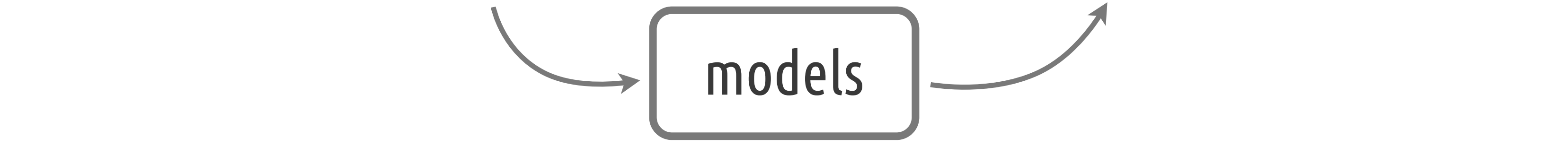


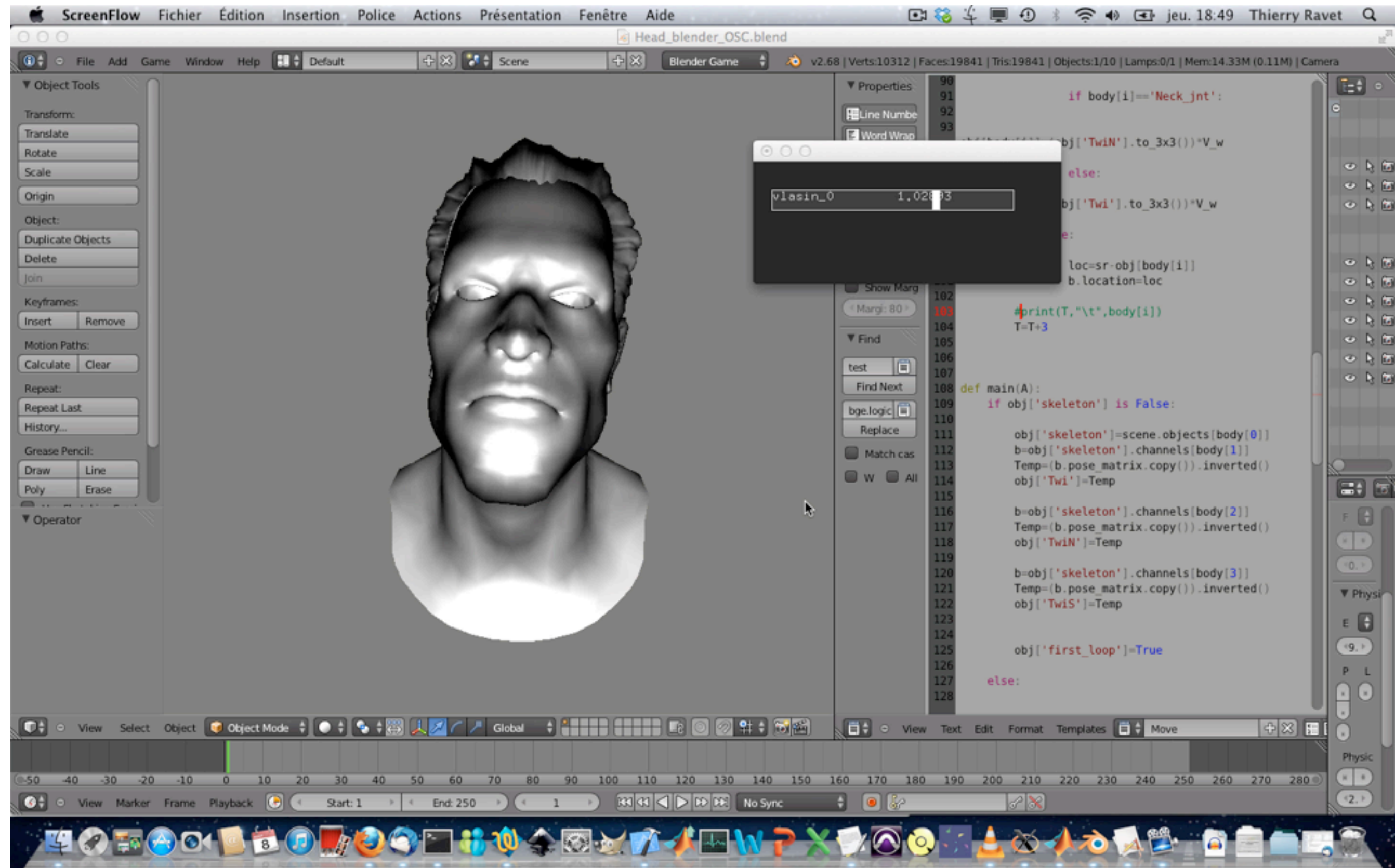
compute durations

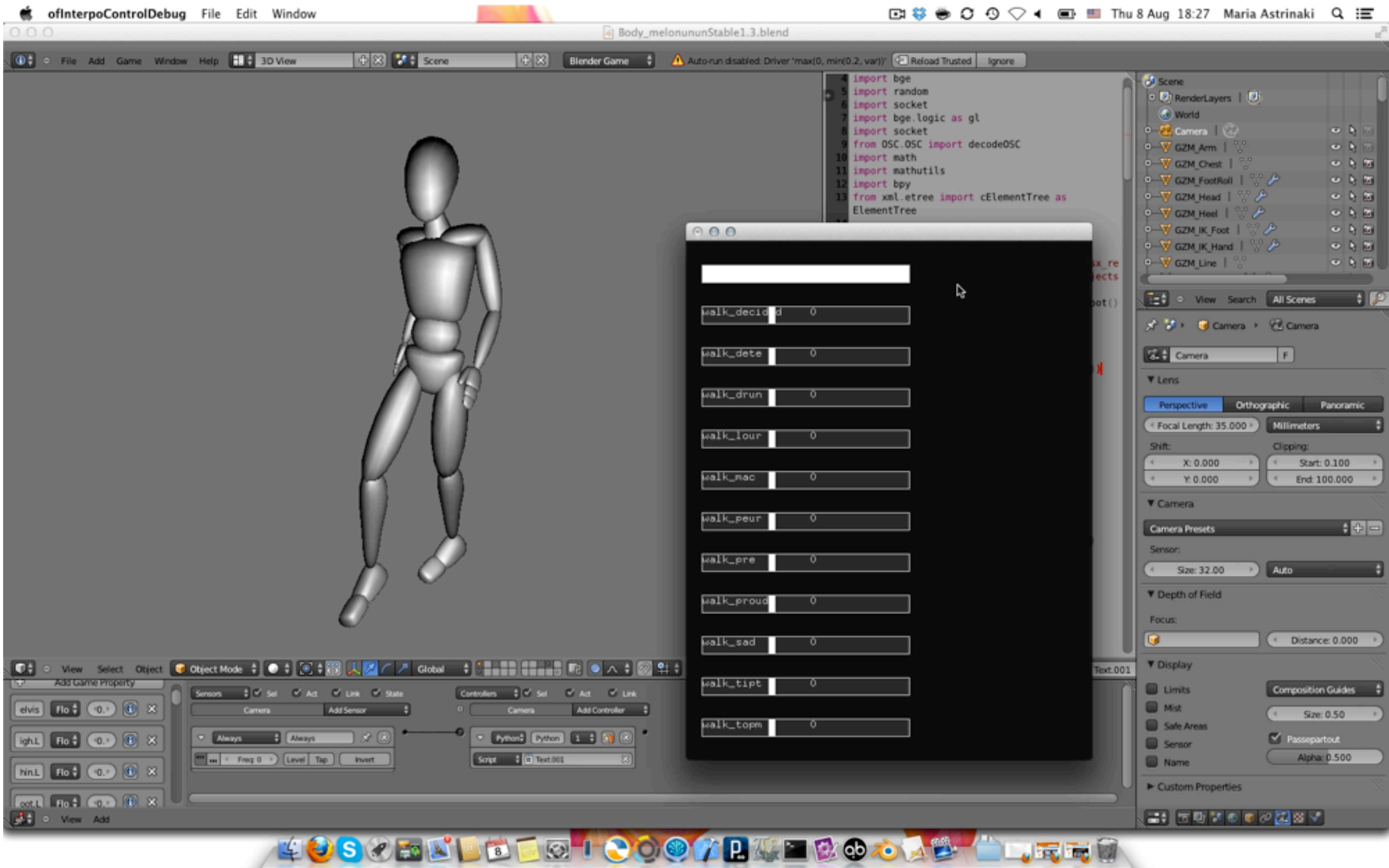
A-B+C@1_0
B-C+D@0_1

model query

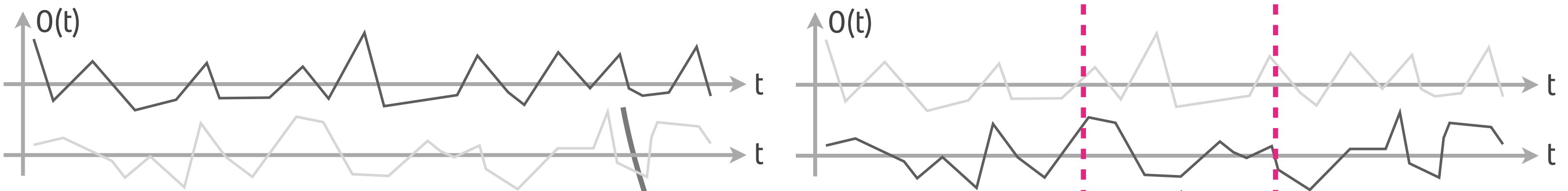
models







3) covariance-based mapping



viterbi decode

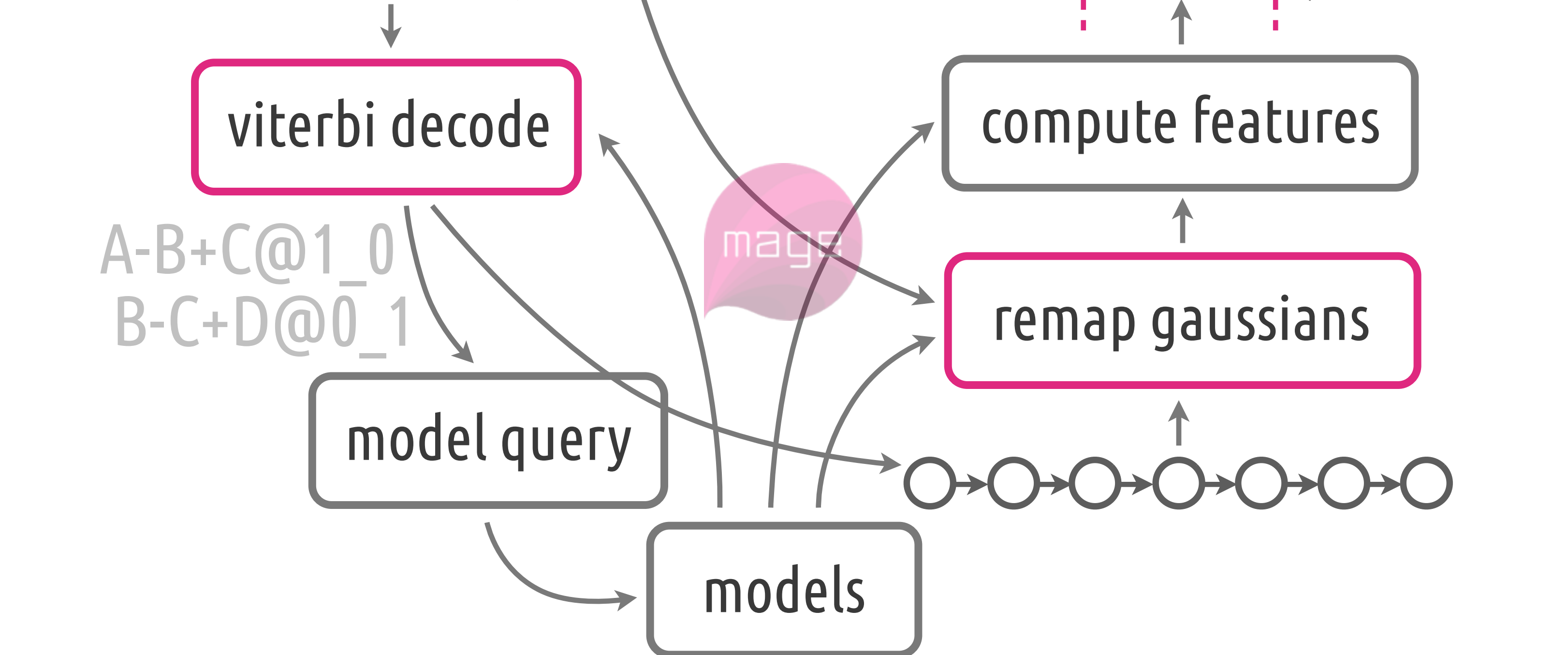
compute features

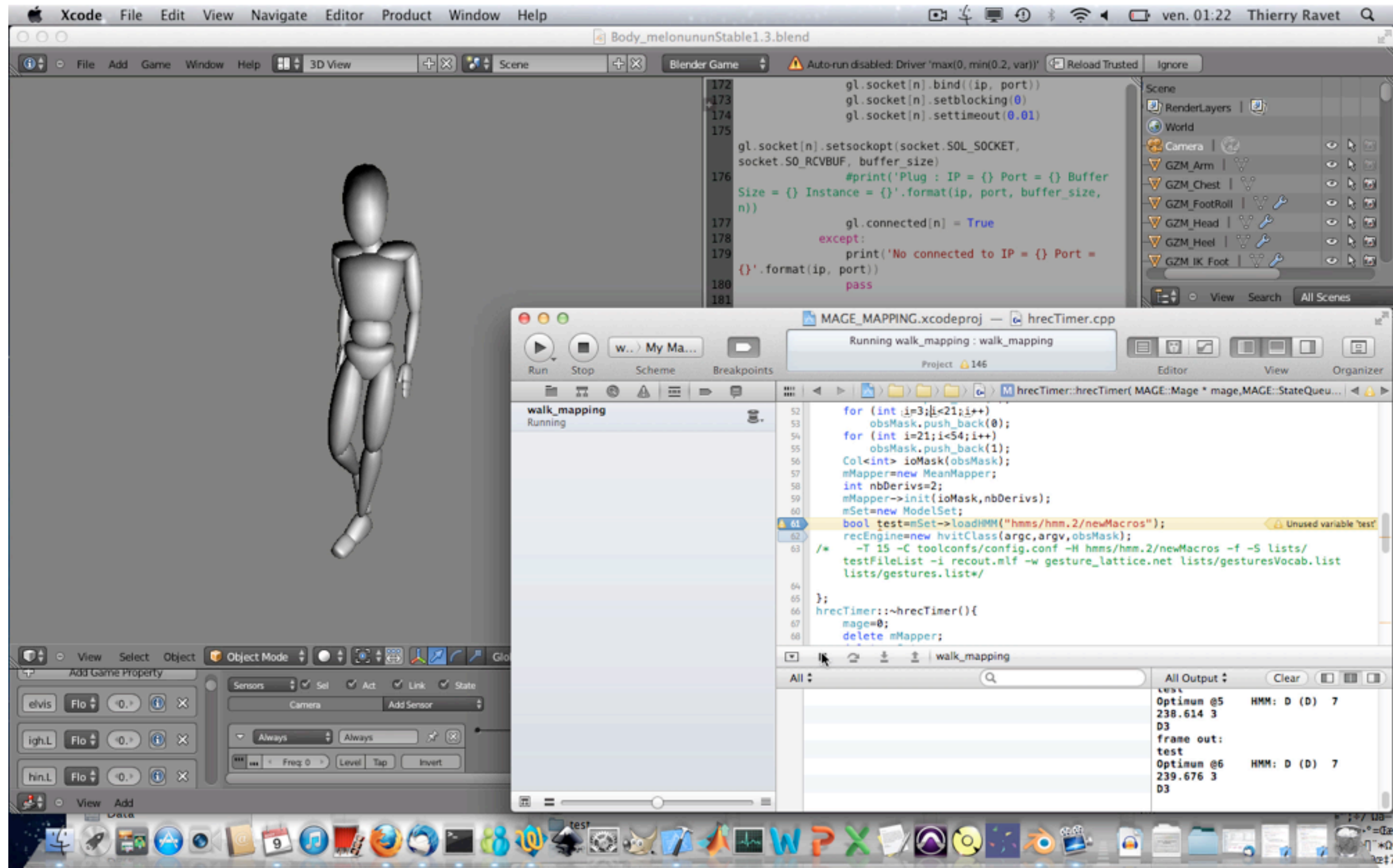
A-B+C@1_0
B-C+D@0_1

model query

remap gaussians

models





recording of a
singing database

GMM-based voice
& face conversion

realtime
audio laughter
synthesis

state queue and state-
based scheduling

indep. dynamic
configuration of
MAGE streams

And much more!

Thank you team!
Obrigado FCT!

incremental
GMM training
surfing :)

regular expression
integrated into
MAGE querying

3D-controller
mapping of MAGE
in Max/MSP

jitter, shimmer and
spectral feature
modifications