

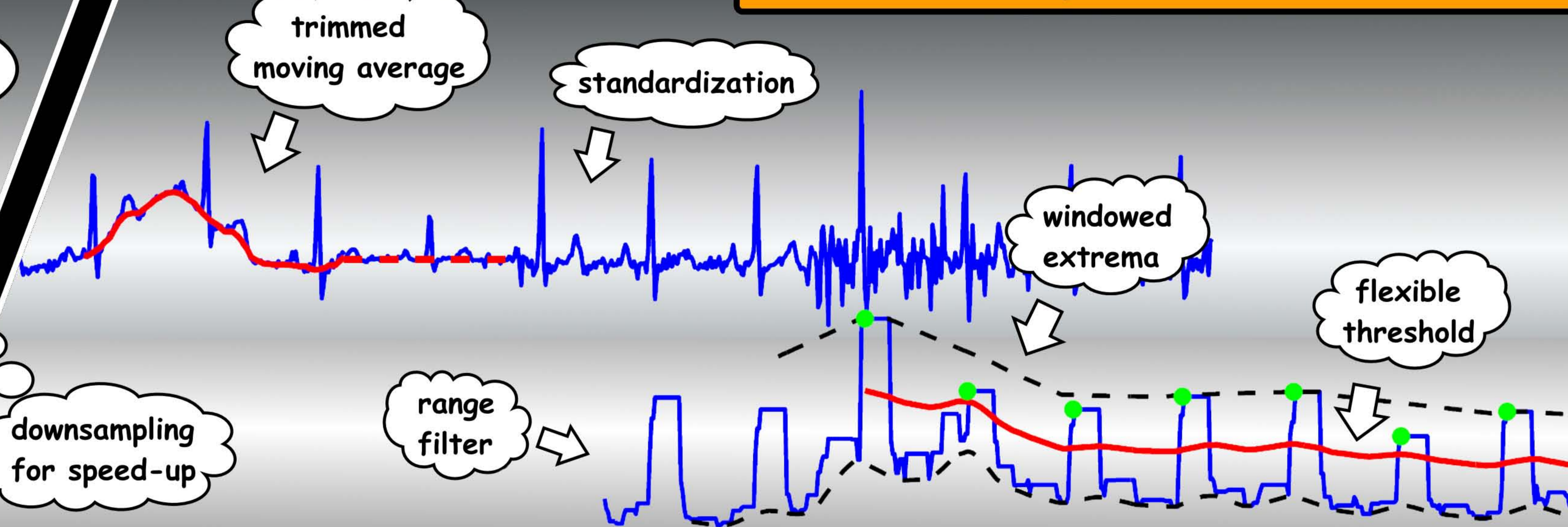
At the department ...

I have a lot of physiological raw data. Can you extract the beats?

Let me think ...



meanwhile thinking about a new QRS detector ...



How to cover multiple channels?

Take 30 sec. subset

For all channels and two settings:

- annotate heart beats
- compute RR distances

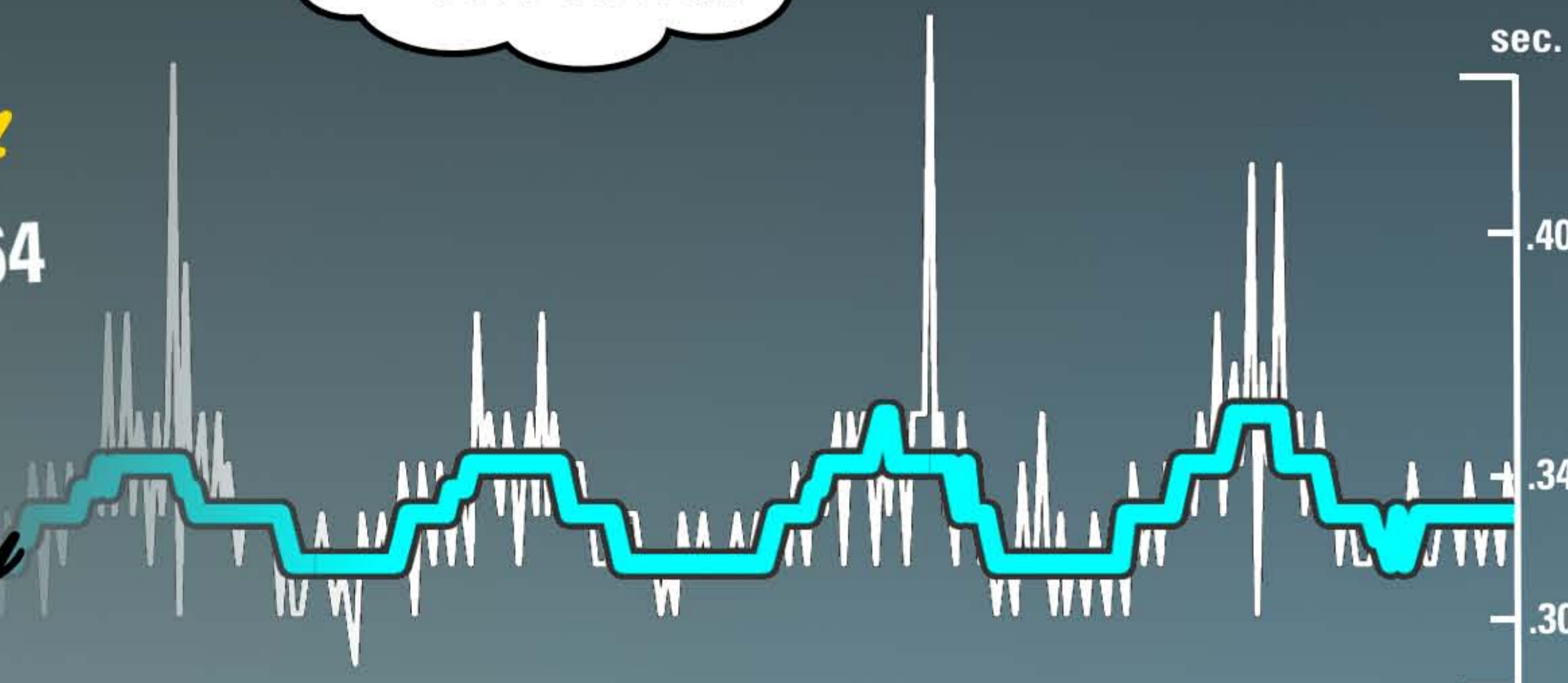
Choose channels for which

$$P\left(\frac{RR_{i+1}}{RR_i} \text{ in } [0.8; 1.2]\right) \geq 80\%$$

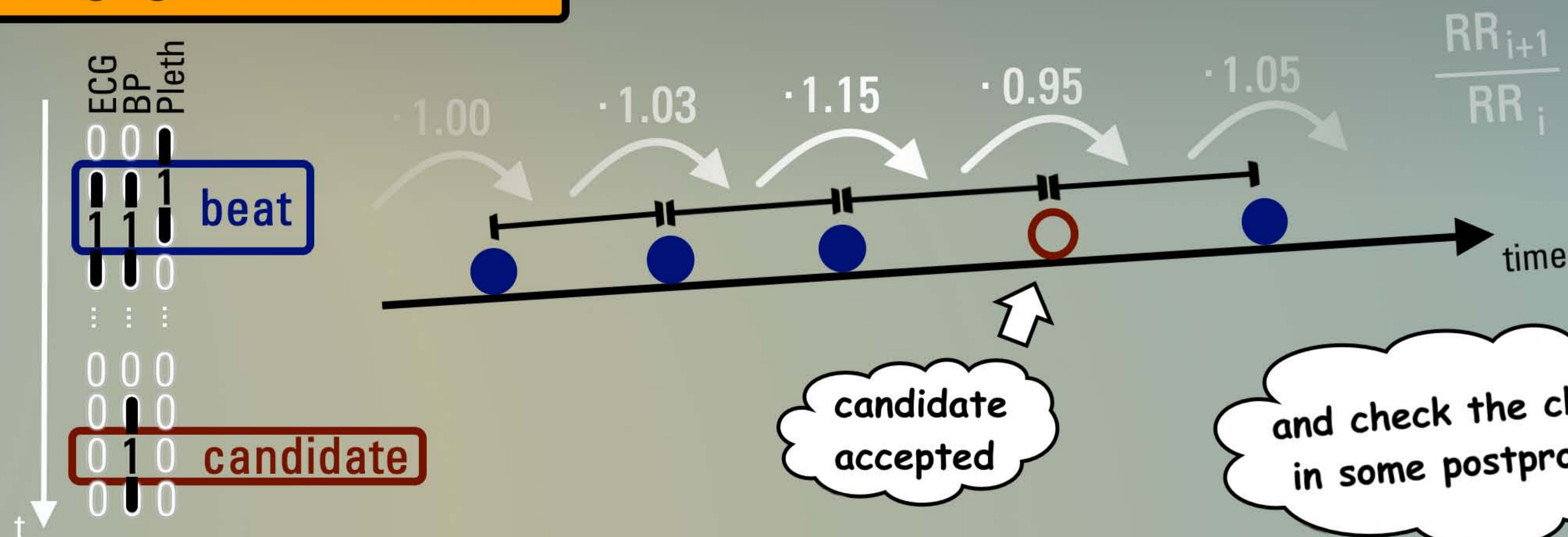
Fine! But how to combine multiple channels?



dynamic delay correction



merging beat annotations



Results

Does it work properly?

	SE	+P
set-p	.9989	.9993
MIT/BIH	.9896	.9962
slpdb	.9990	.9970
noise stress test	.9503	.9160



Physionet Challenge
CinC 2014 Phase III:
Overall 86.22

