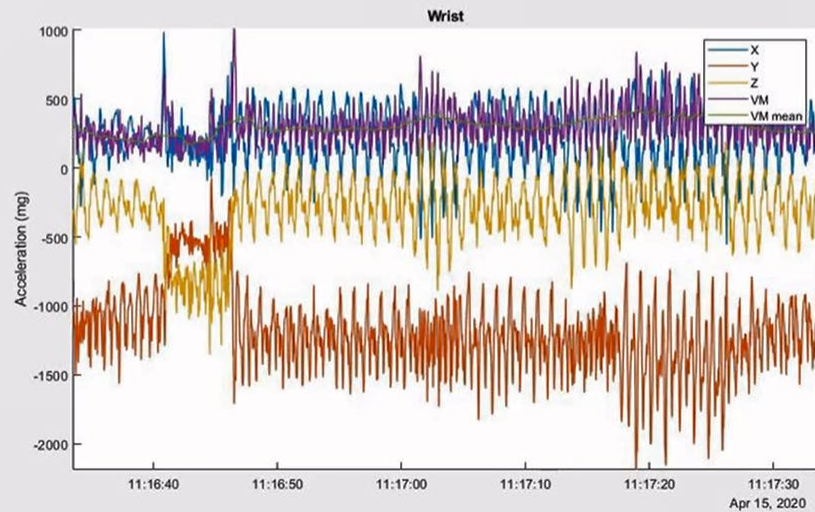
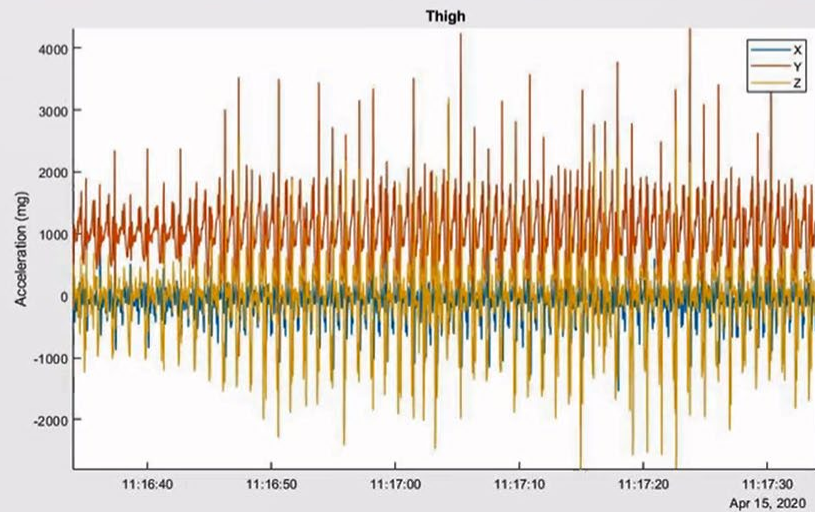
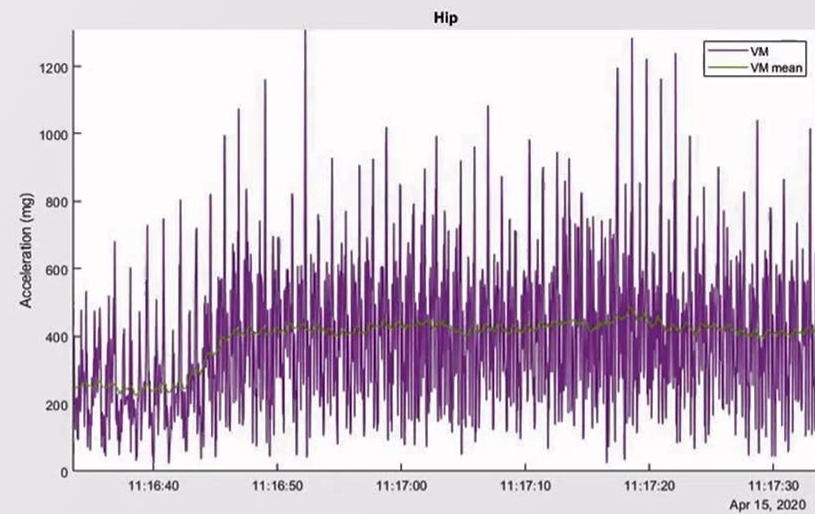




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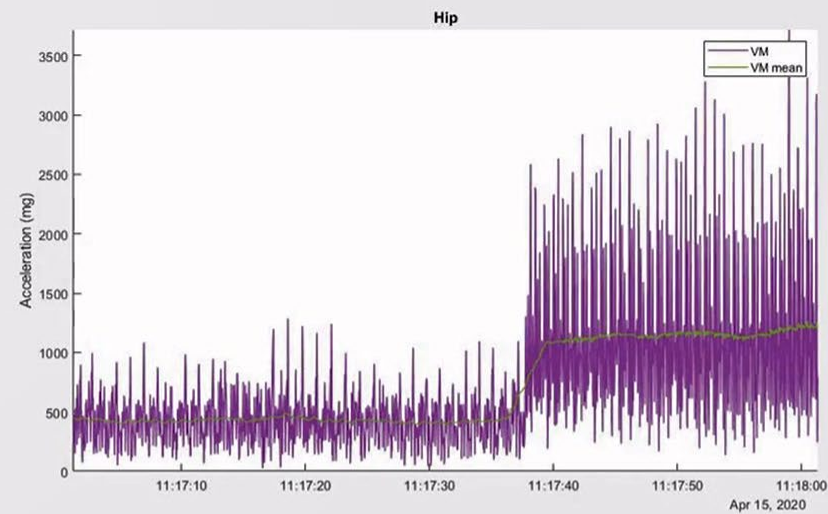
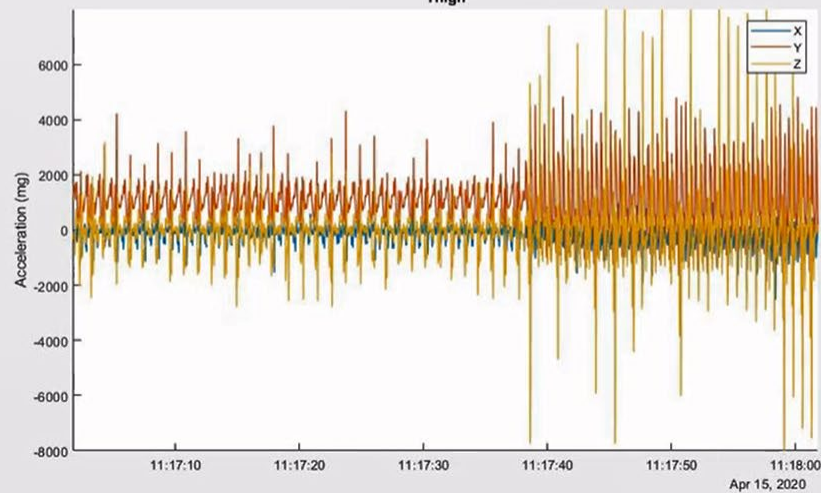
from
Processing of Raw Accelerometer Data
to
Multivariate Analysis

JONATAN FRIDOLFSSON

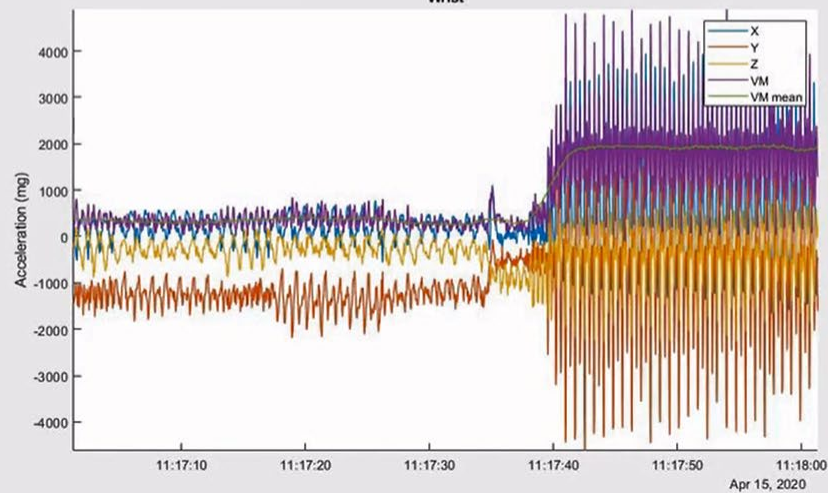




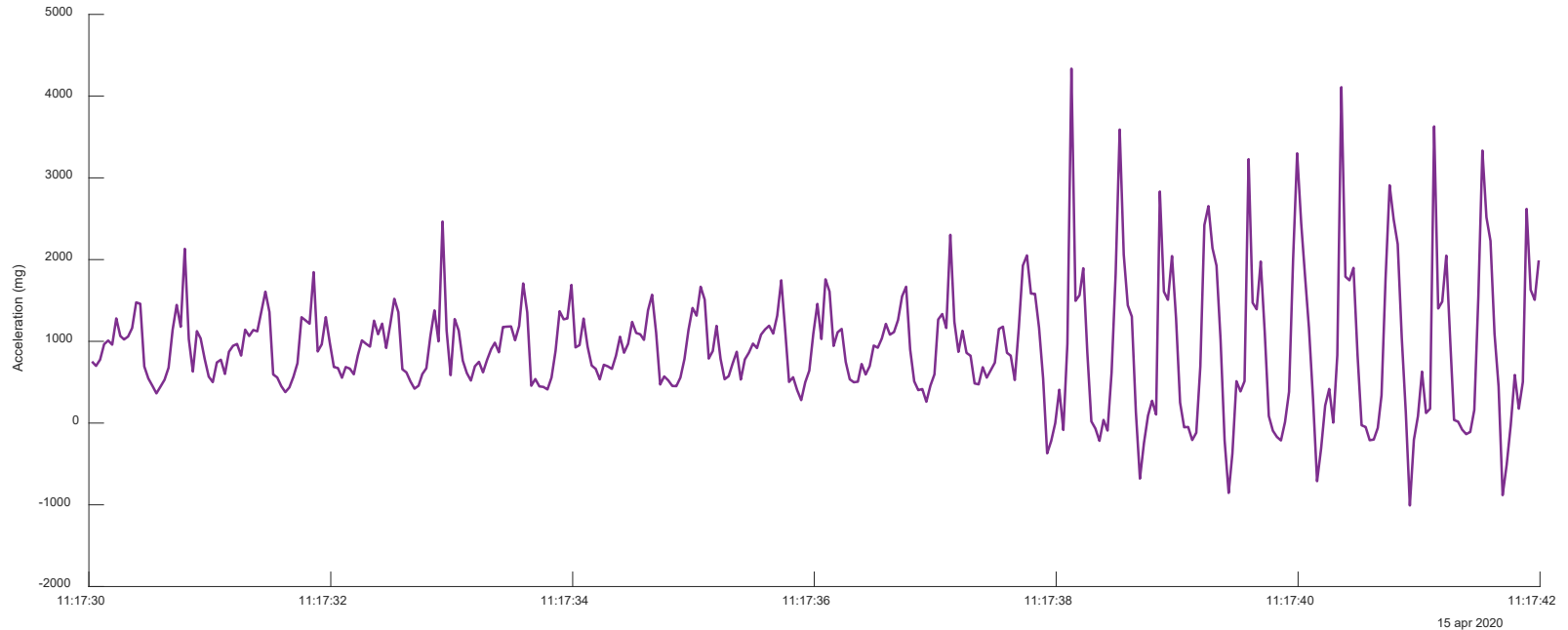
Thigh



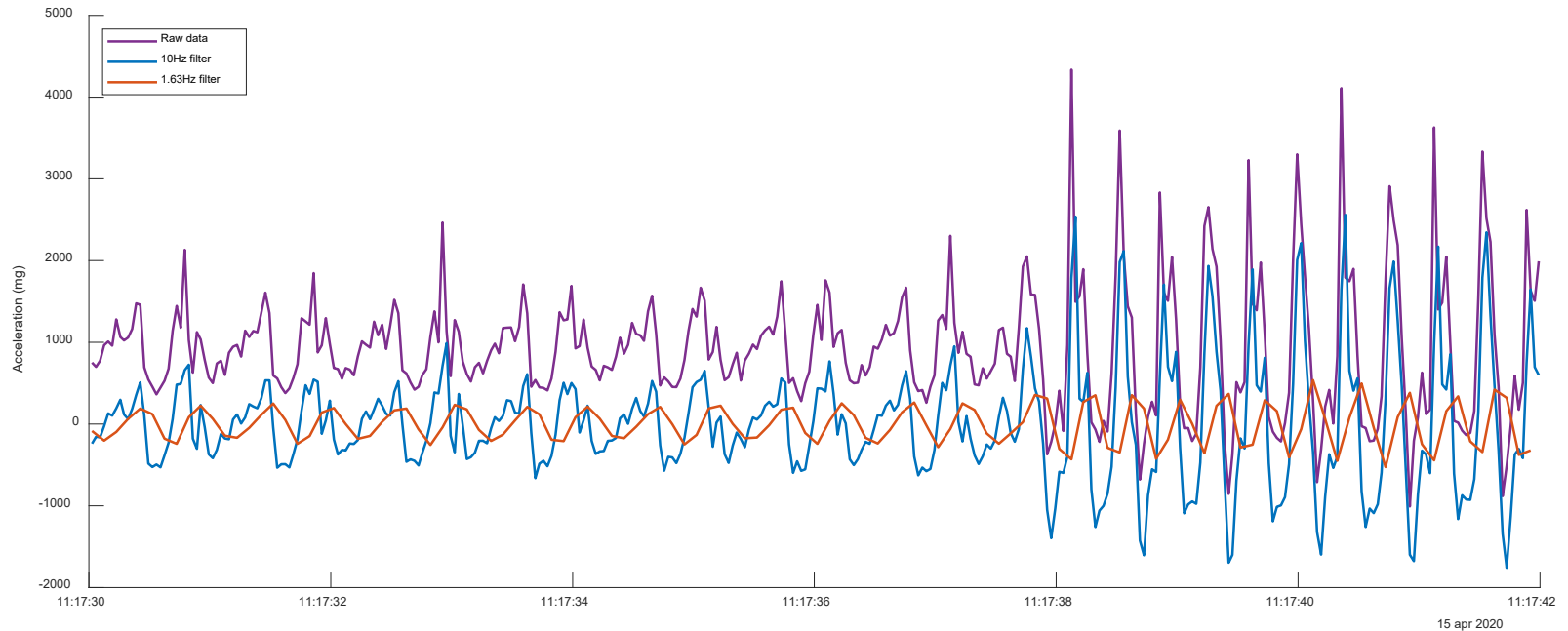
Wrist



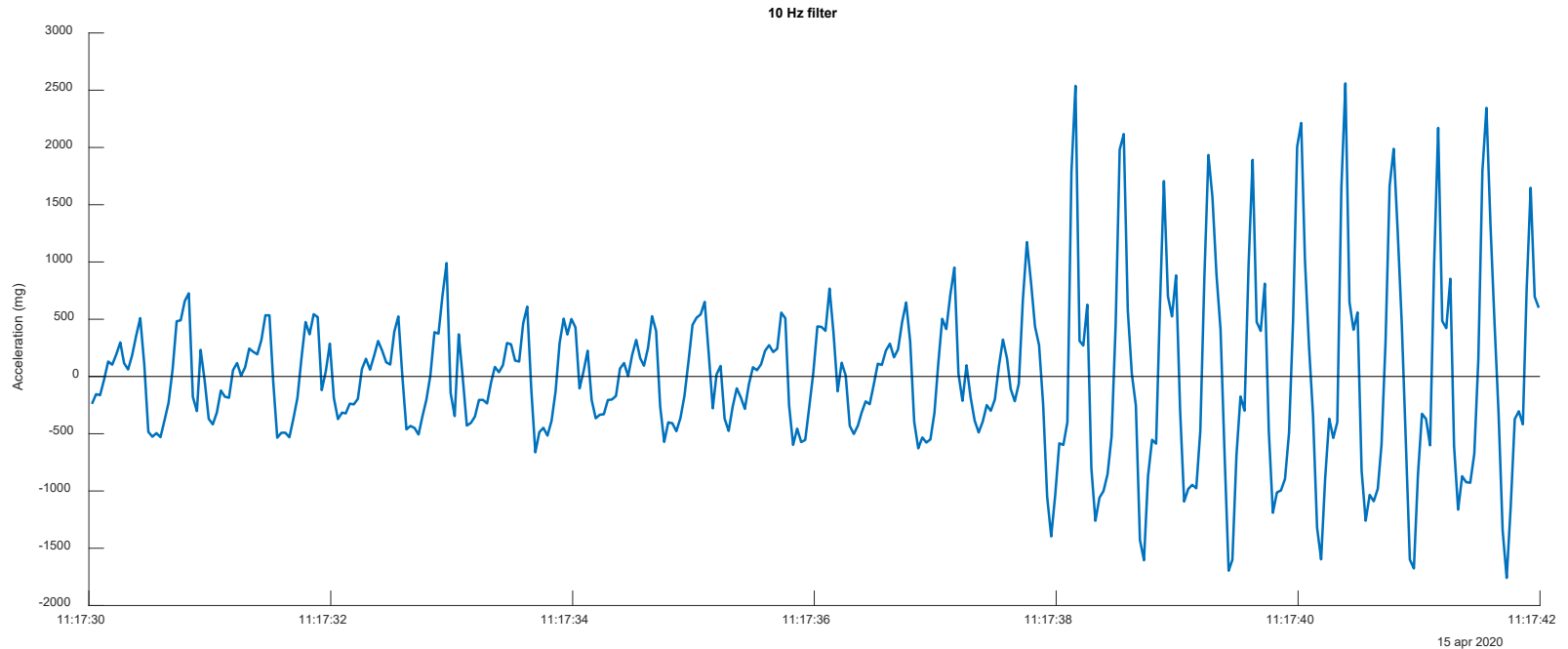
Processing of raw accelerometer data



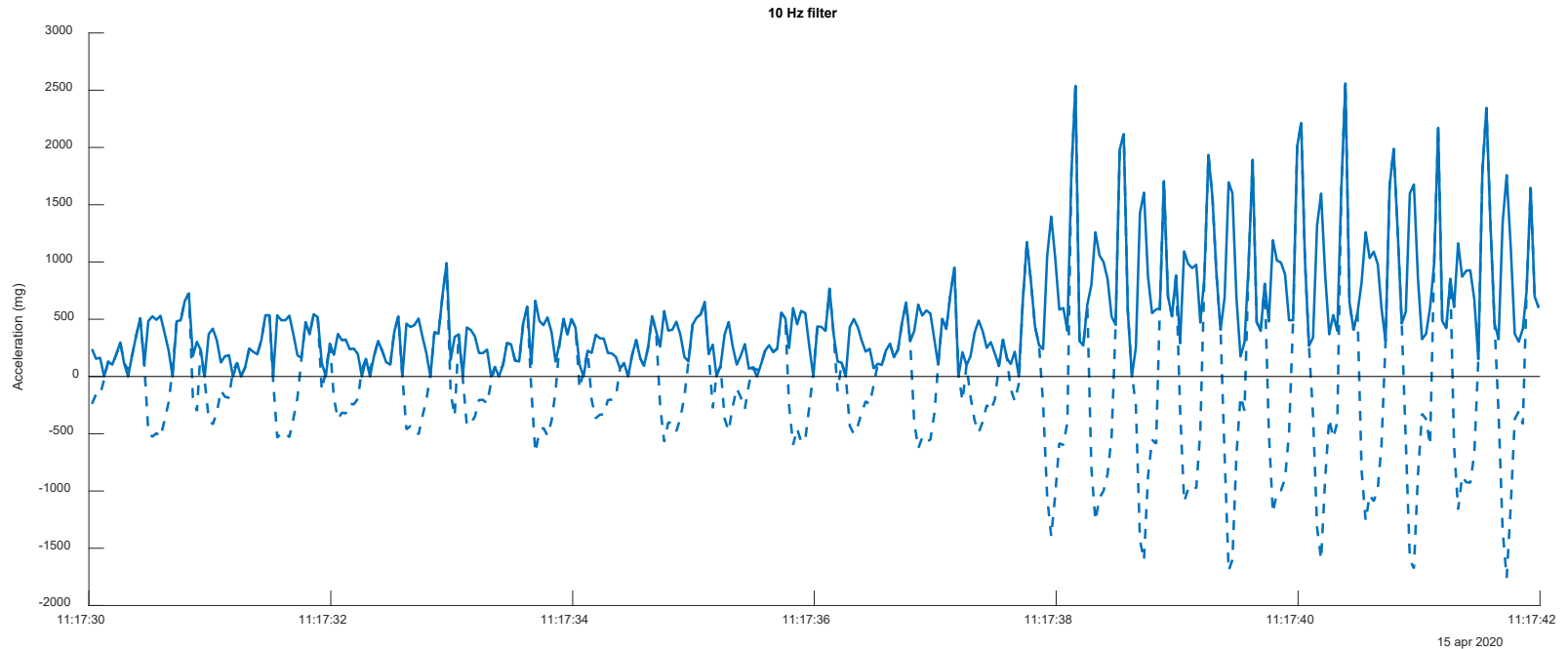
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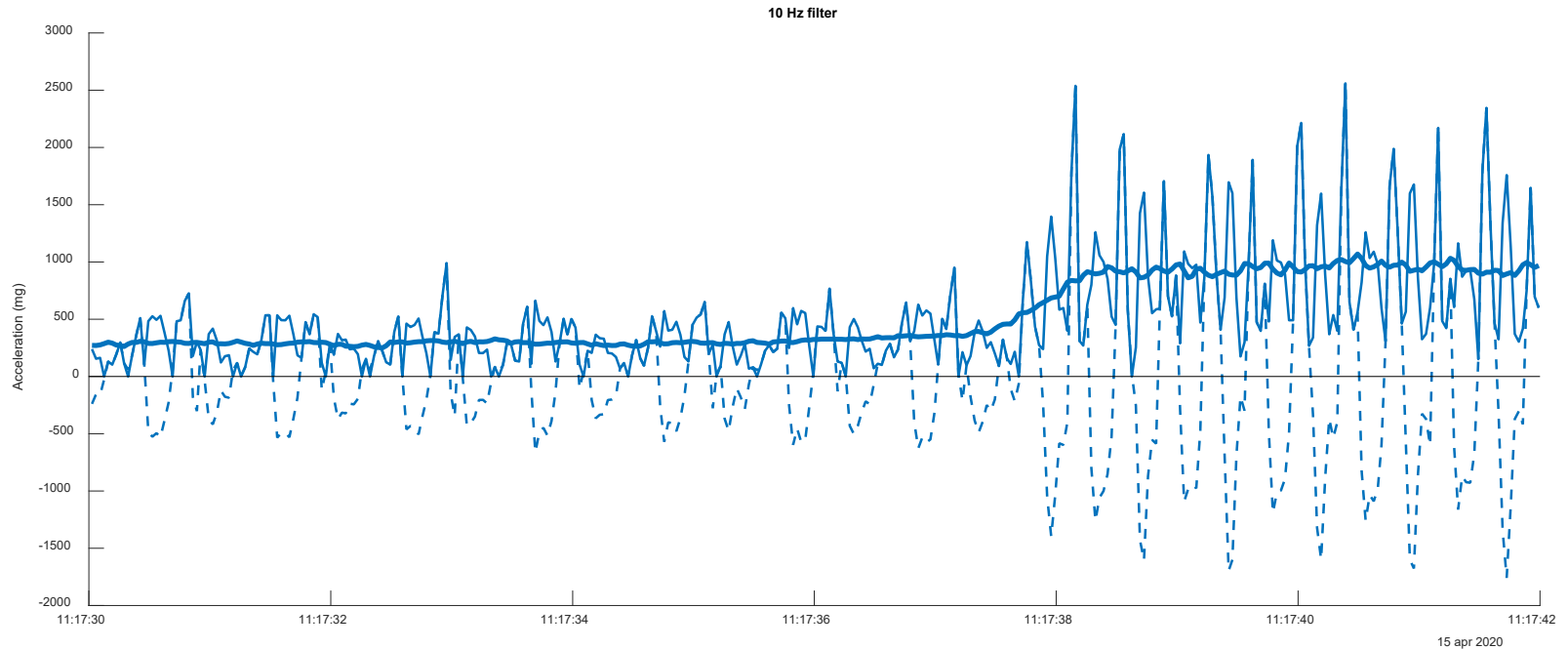
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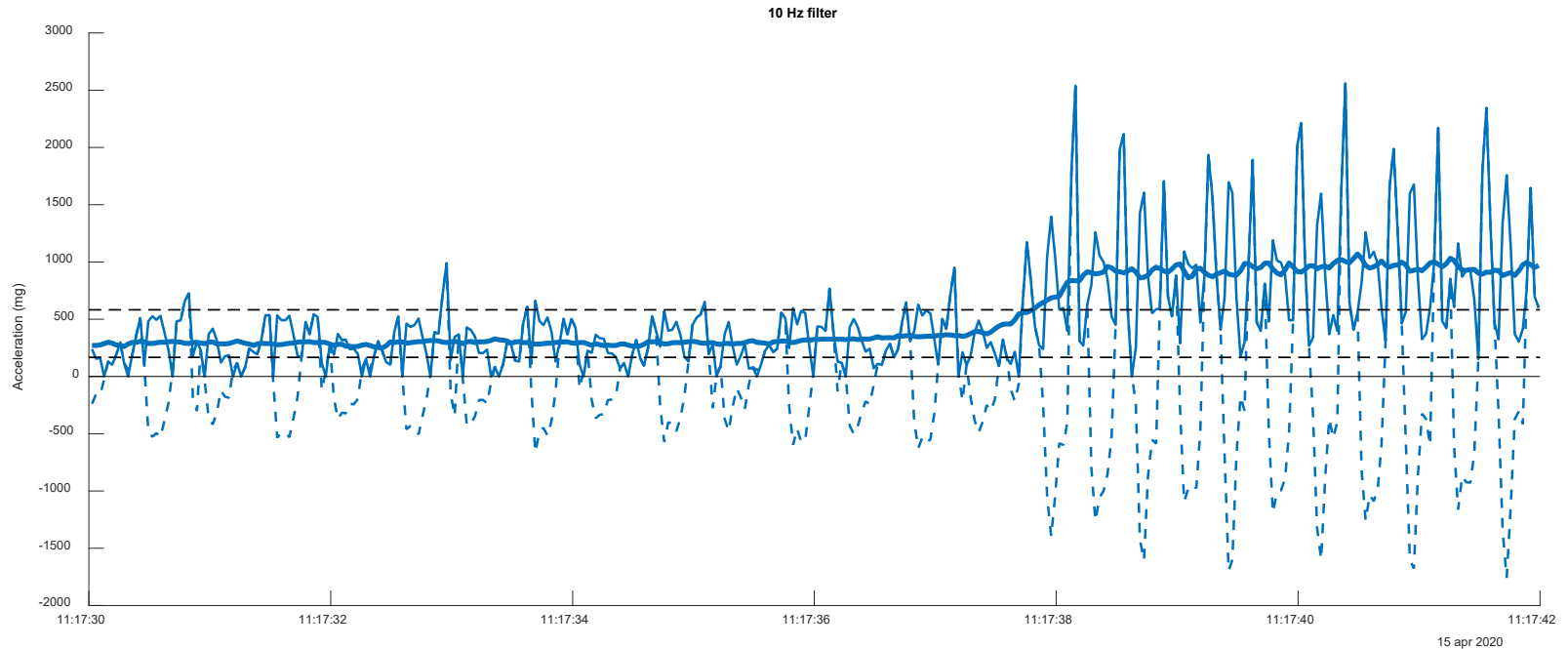
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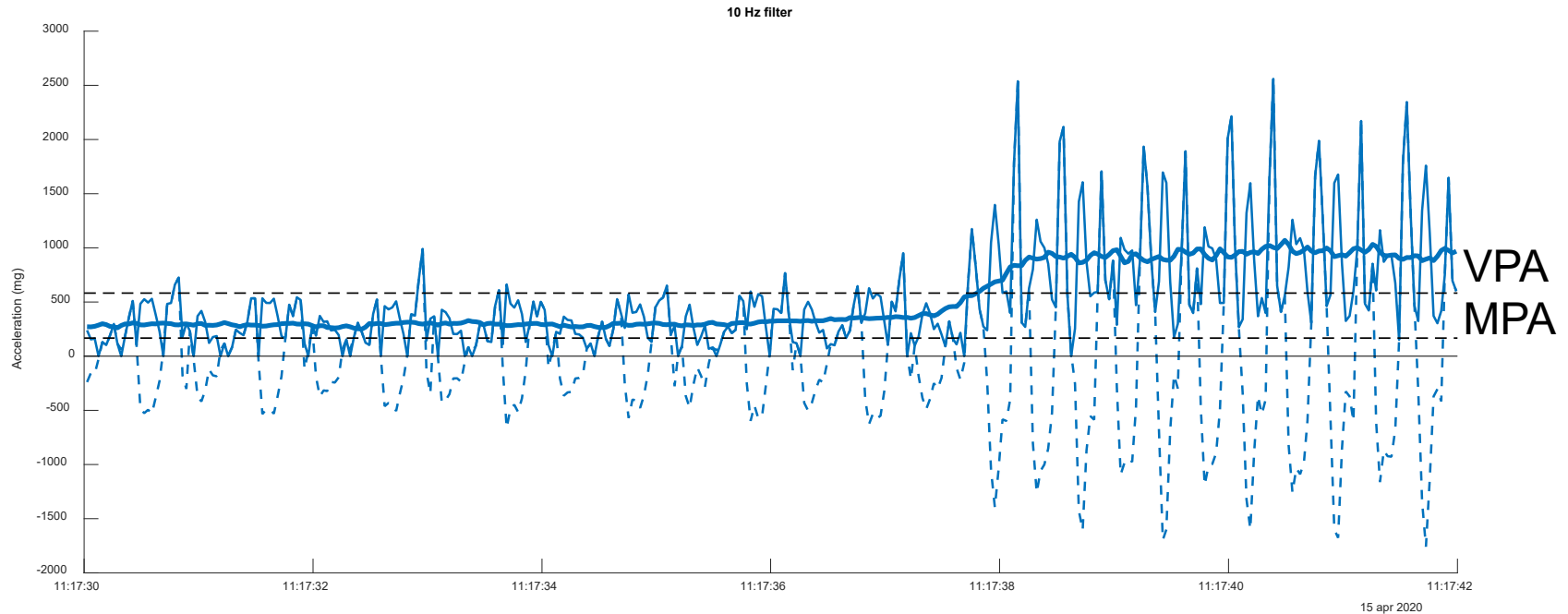
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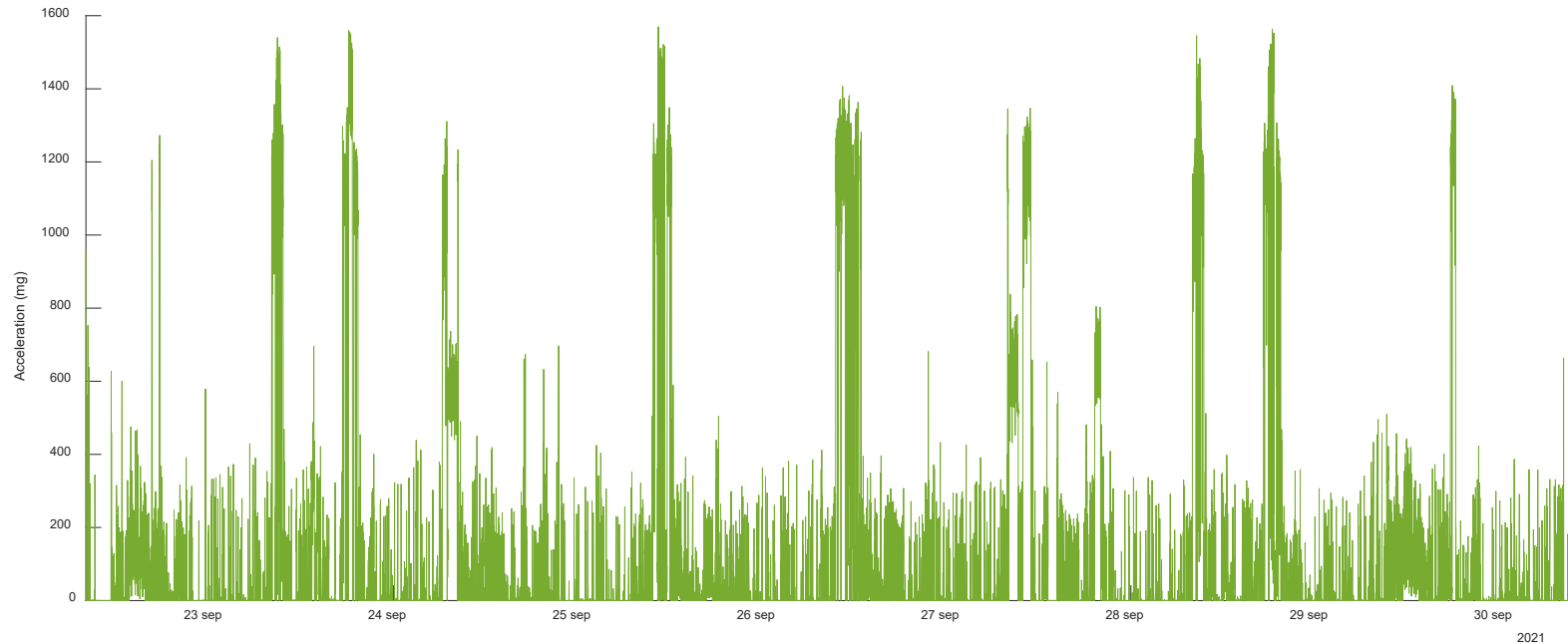
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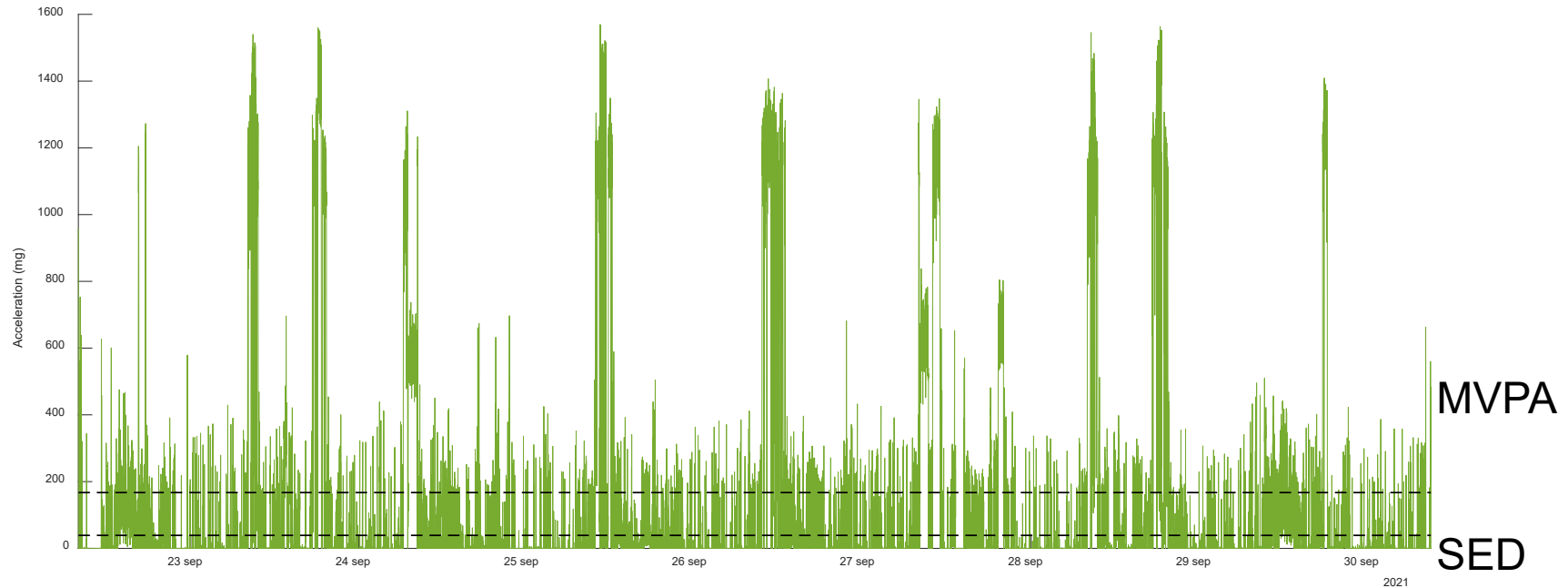
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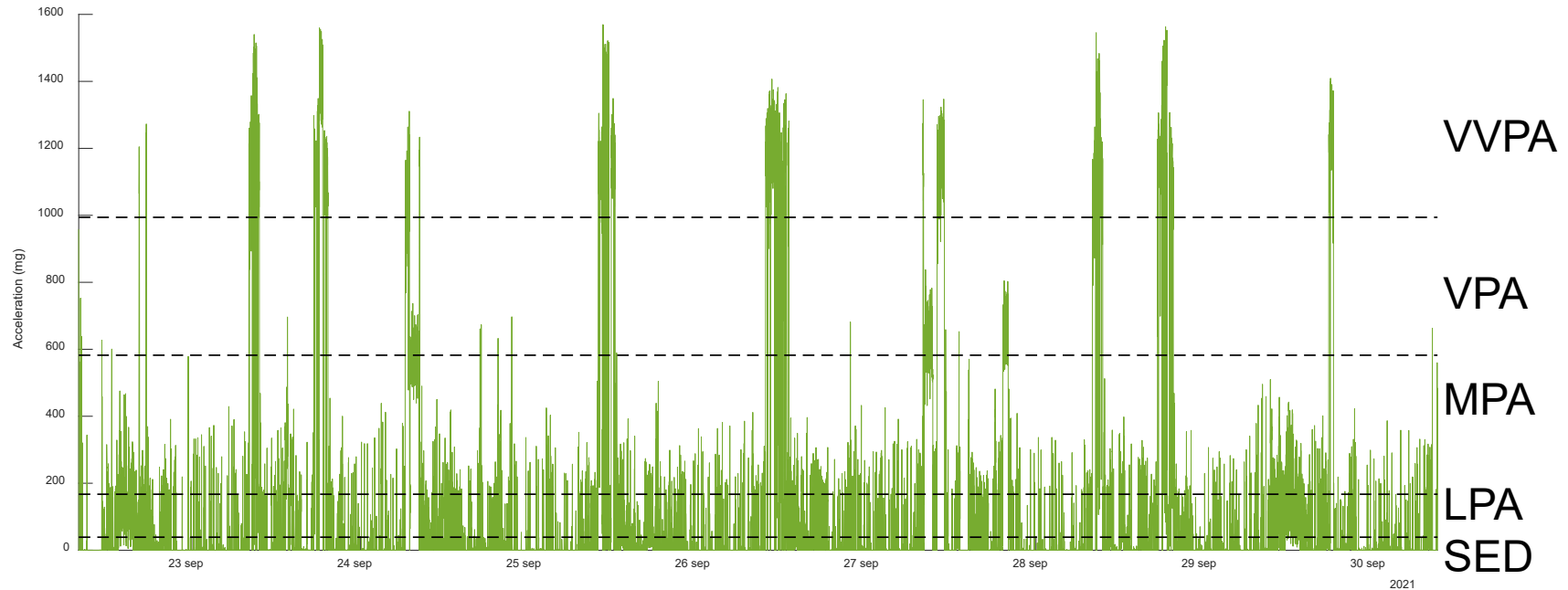
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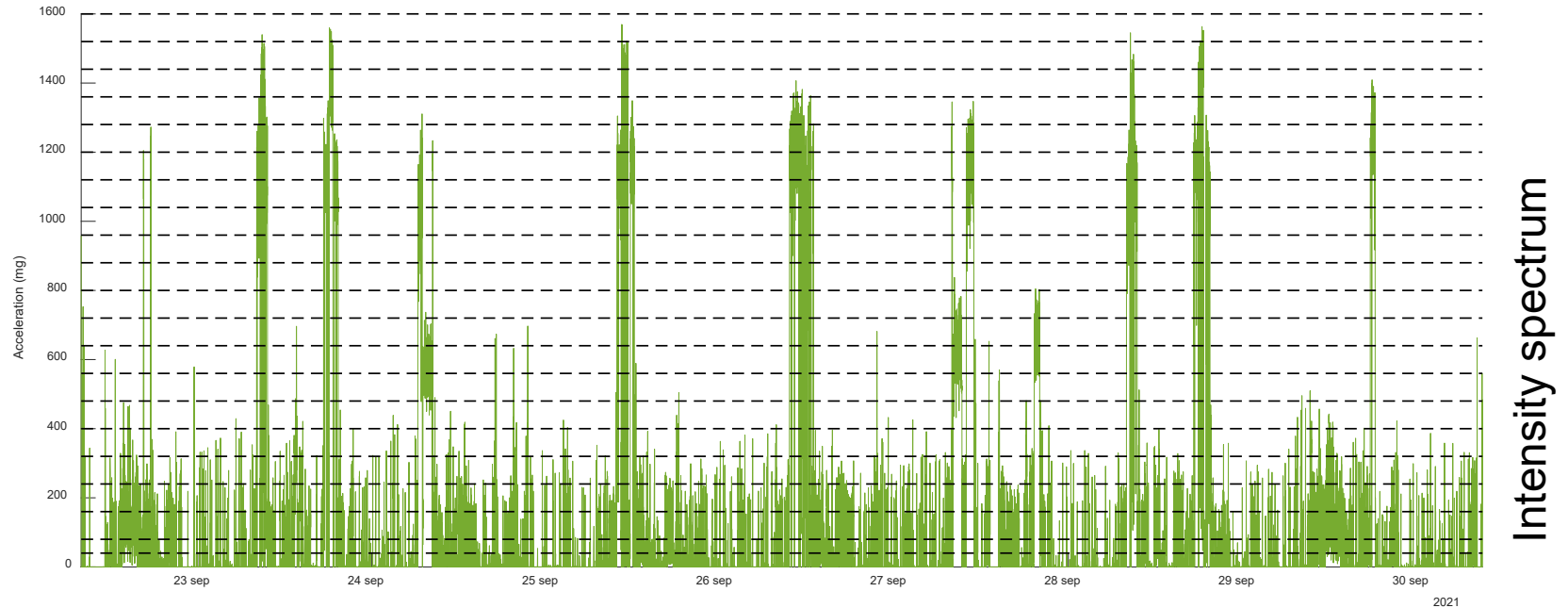
Processing of raw accelerometer data



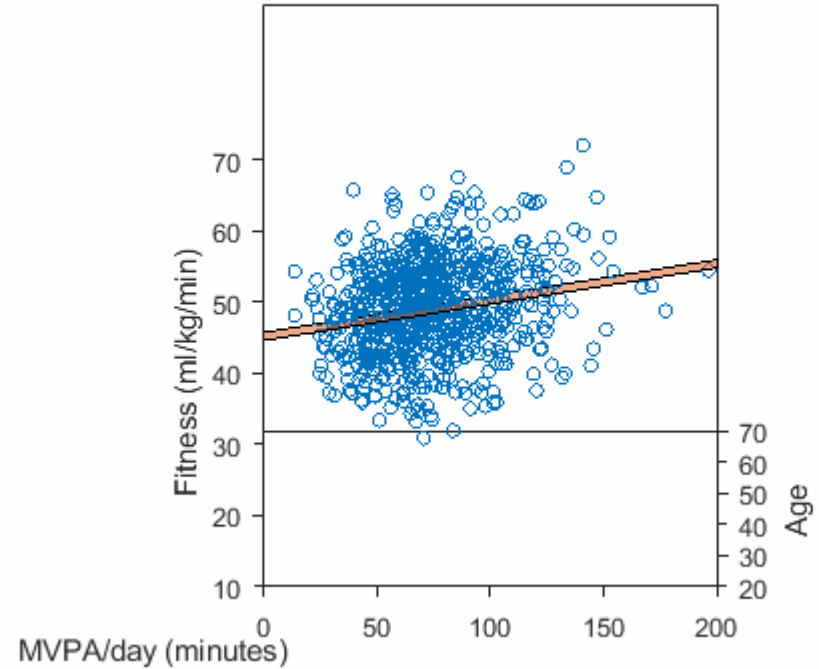
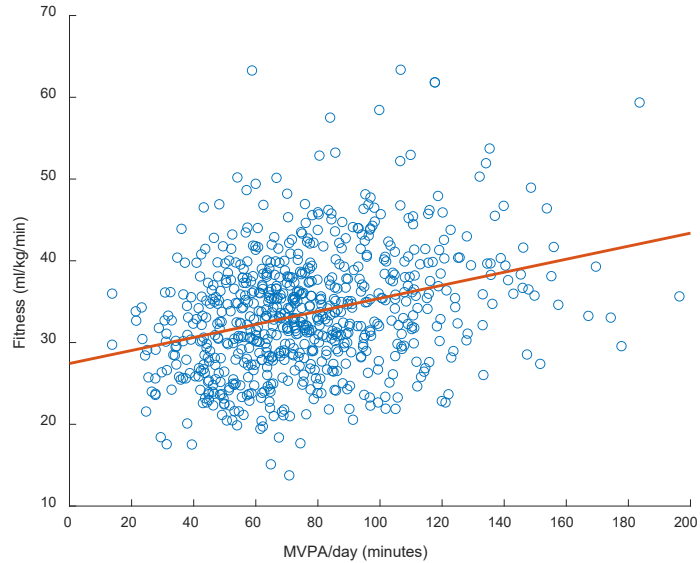
Processing of raw accelerometer data



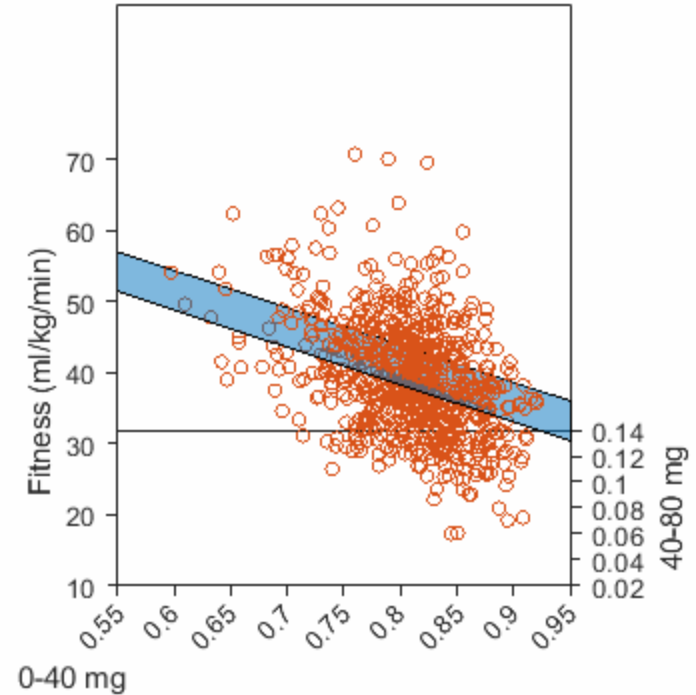
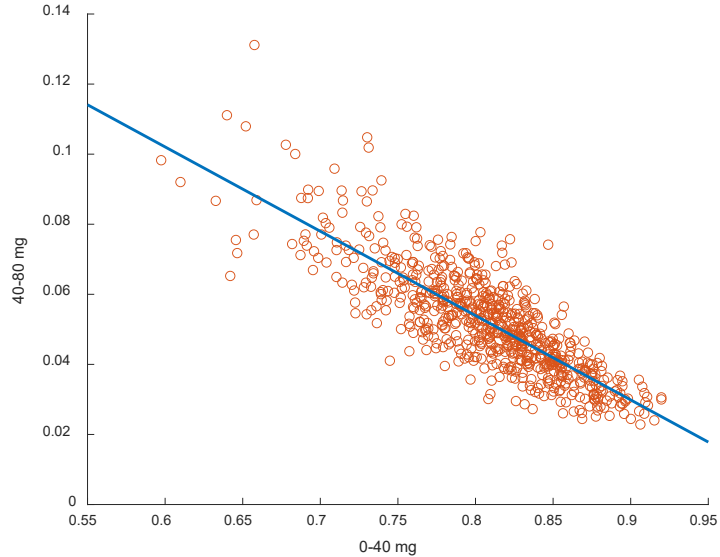
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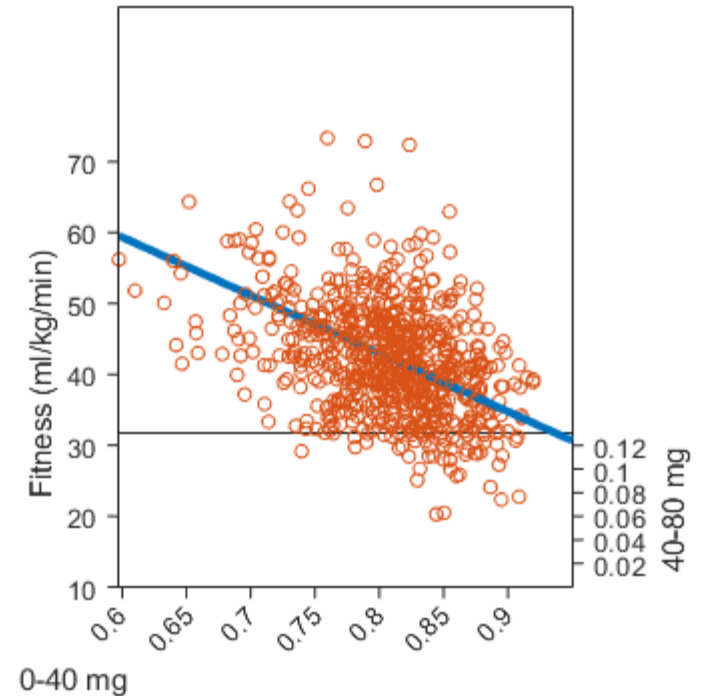
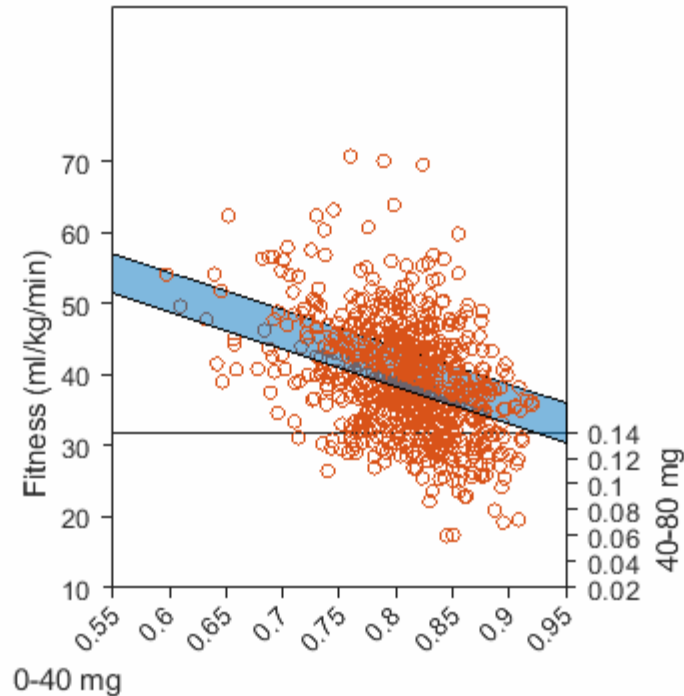
Statistics



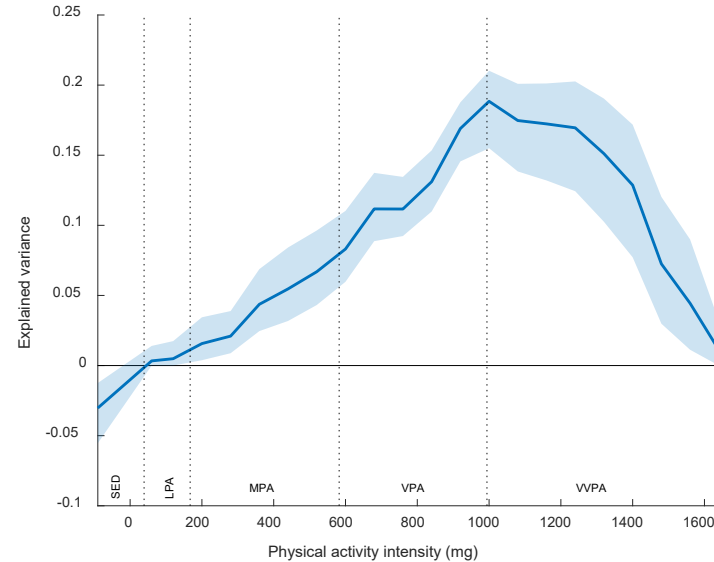
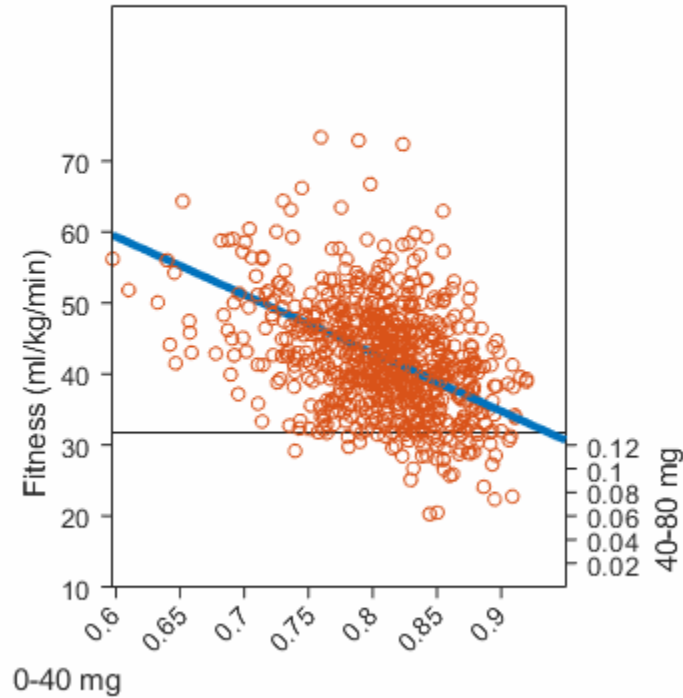
Statistics



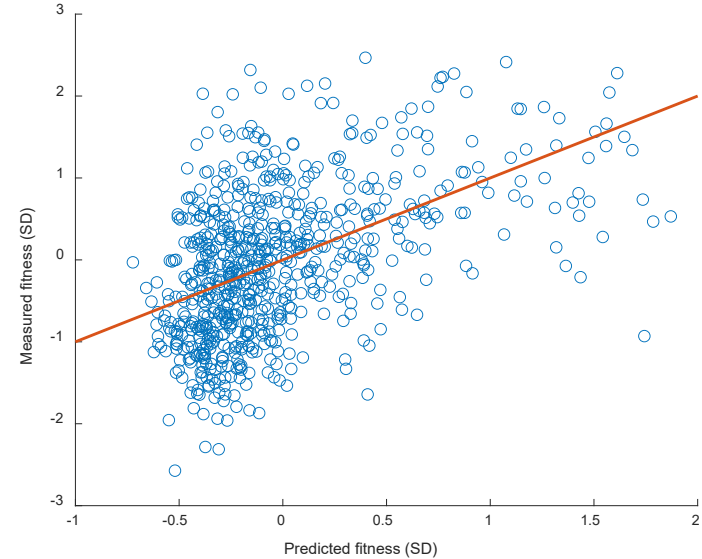
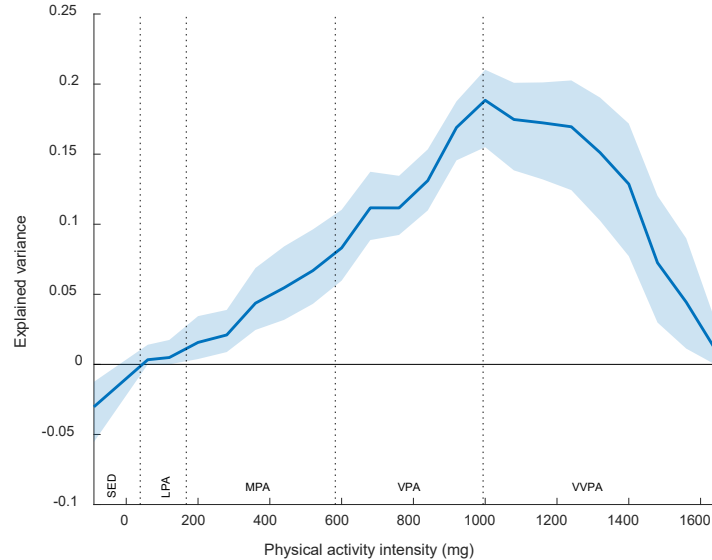
Partial Least Squares Regression PLS



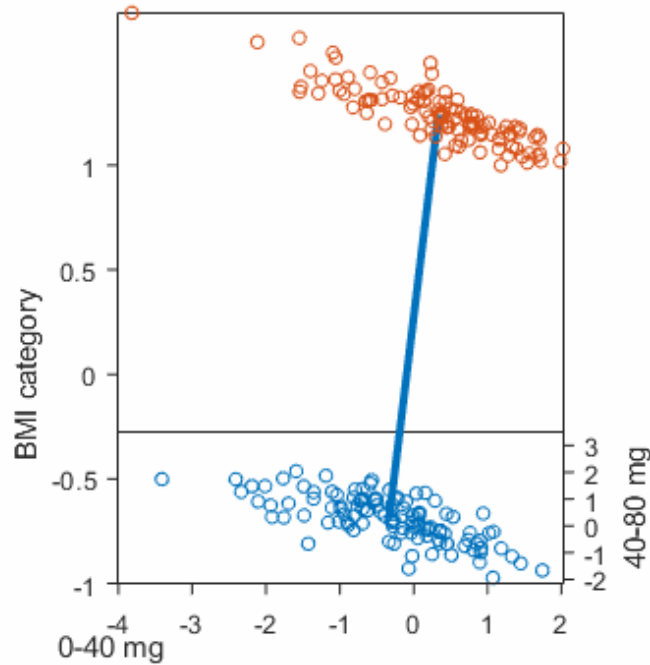
Partial Least Squares Regression PLS



Partial Least Squares Regression PLS



Discriminant Analysis

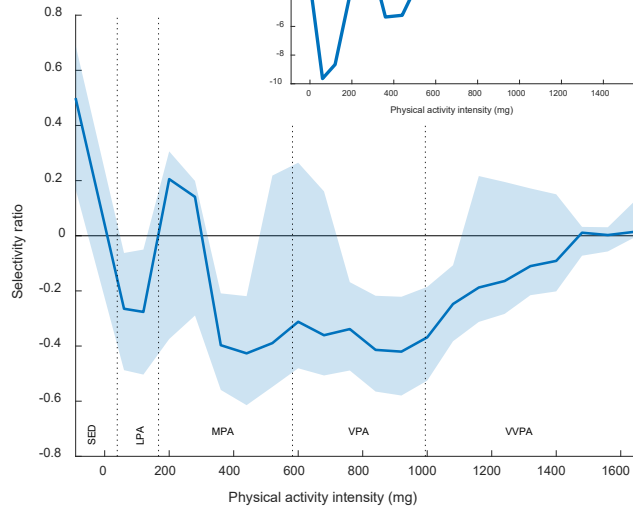
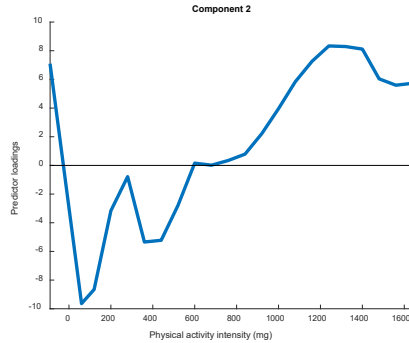


1 Obesity

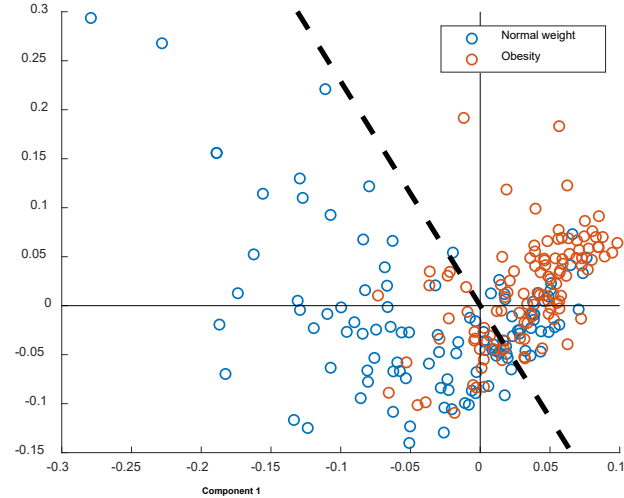
-1 Normal weight

Discriminant Analysis

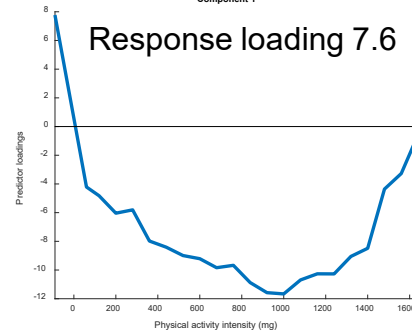
Response loading 3.3



Predictor scores

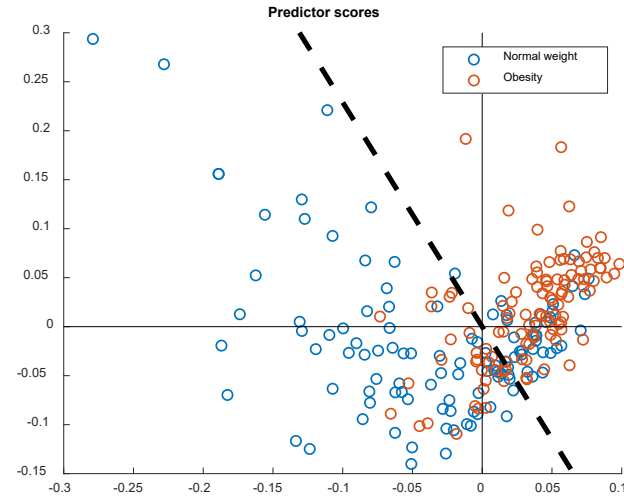
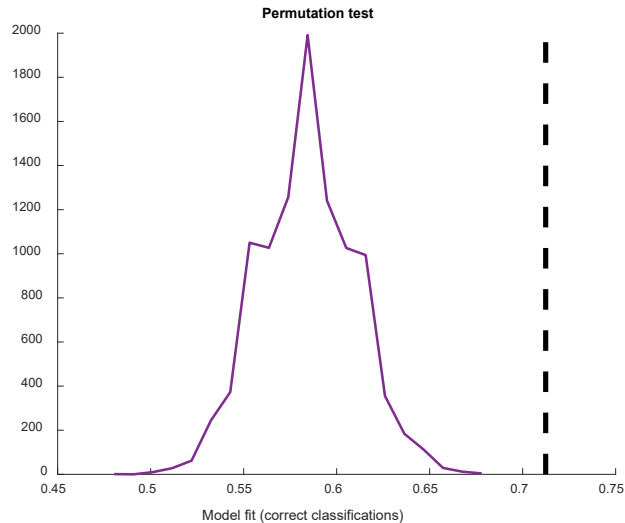


Response loading 7.6



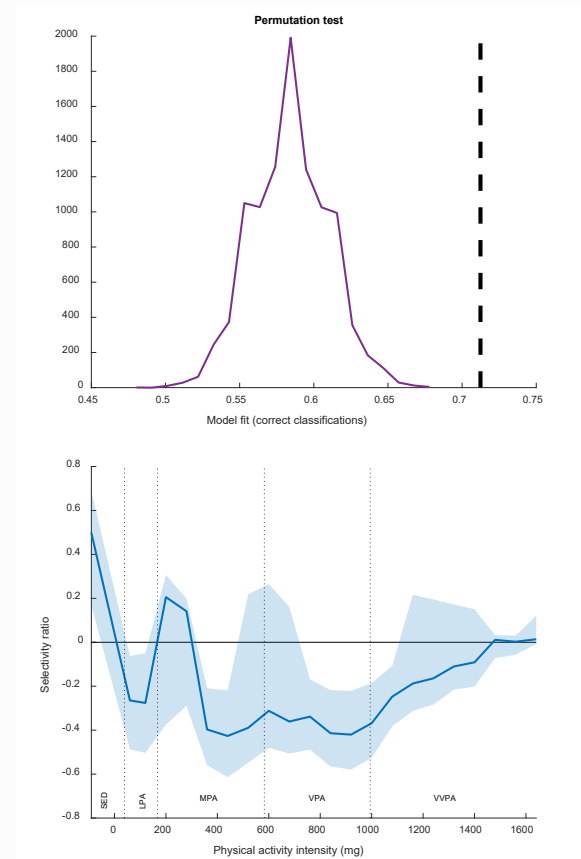
Discriminant Analysis

71%



Multivariate Discriminant Analysis

- Multivariate analysis utilize more of the information in the raw data
- Effect size
 - Correct classifications
- Statistical uncertainty
 - P-value
- Physical activity intensity pattern
 - Selectivity ratio





Jonatan Fridolfsson
Daniel Arvidsson
Mats Börjesson



Örjan Ekblom
Elin Ekblom-Bak