

Team 2

Dynamic prediction of haemodynamic instability using longitudinal information

*Giovanni Angelotti, Wulfran Bougouin, Clément Hénin,
Arthur Imbert, Elodie Lang, Pierandrea Morandini, Christian Niklas,
Sophie Quennelle, Thaïs Walter*

January 20-21, 2018



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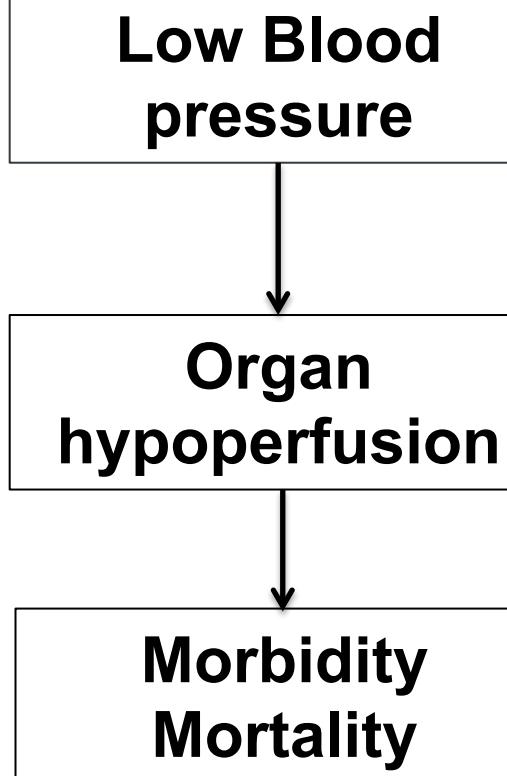
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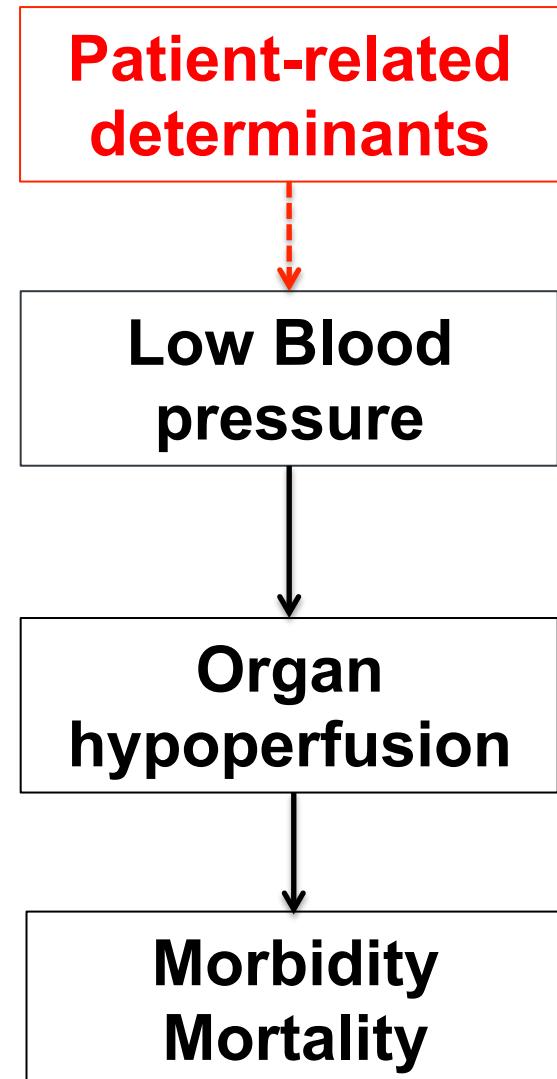


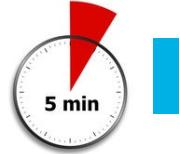
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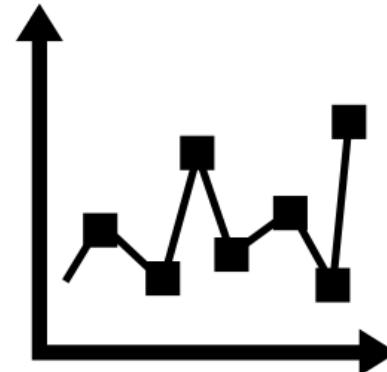
Patient-related determinants

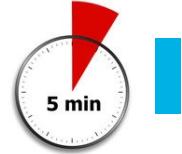






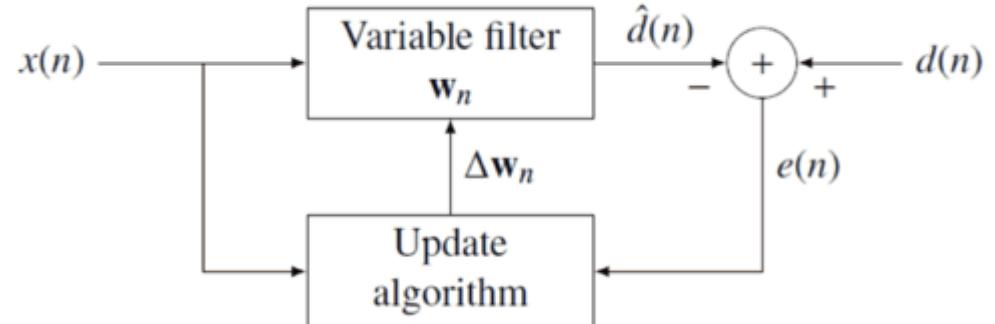
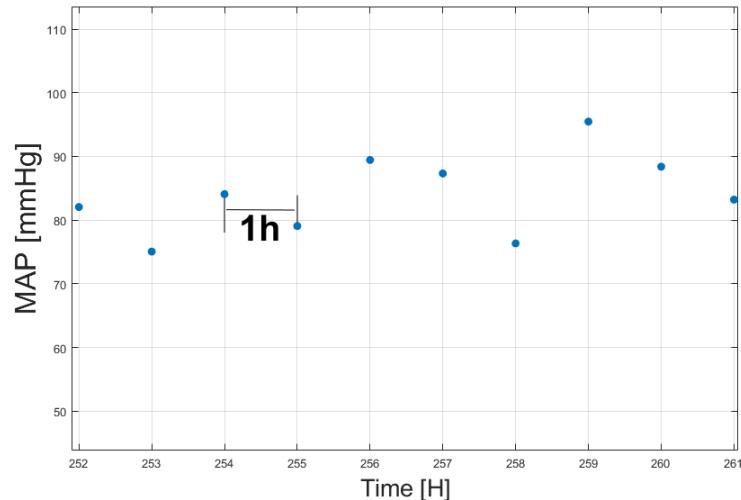
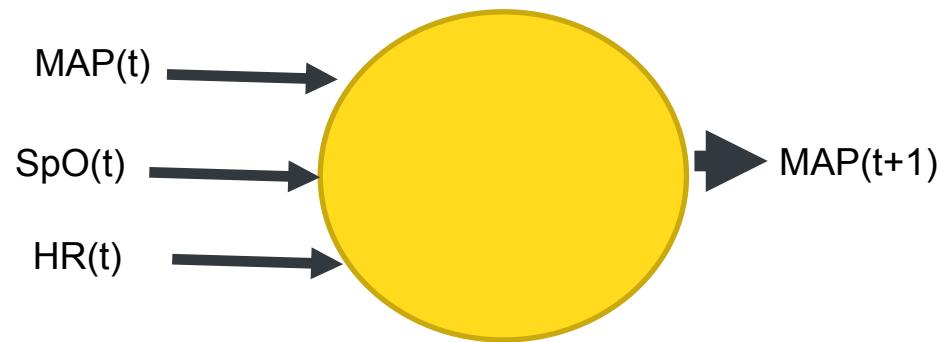
- **Inclusion criteria**
 - ICU after cardiac surgery
 - Age 40-90 y.o
- **Exclusion criteria**
 - Need for catecholamine
 - Length of stay < 24 hours
- **Data collected**
 - Demographics
 - Vitals



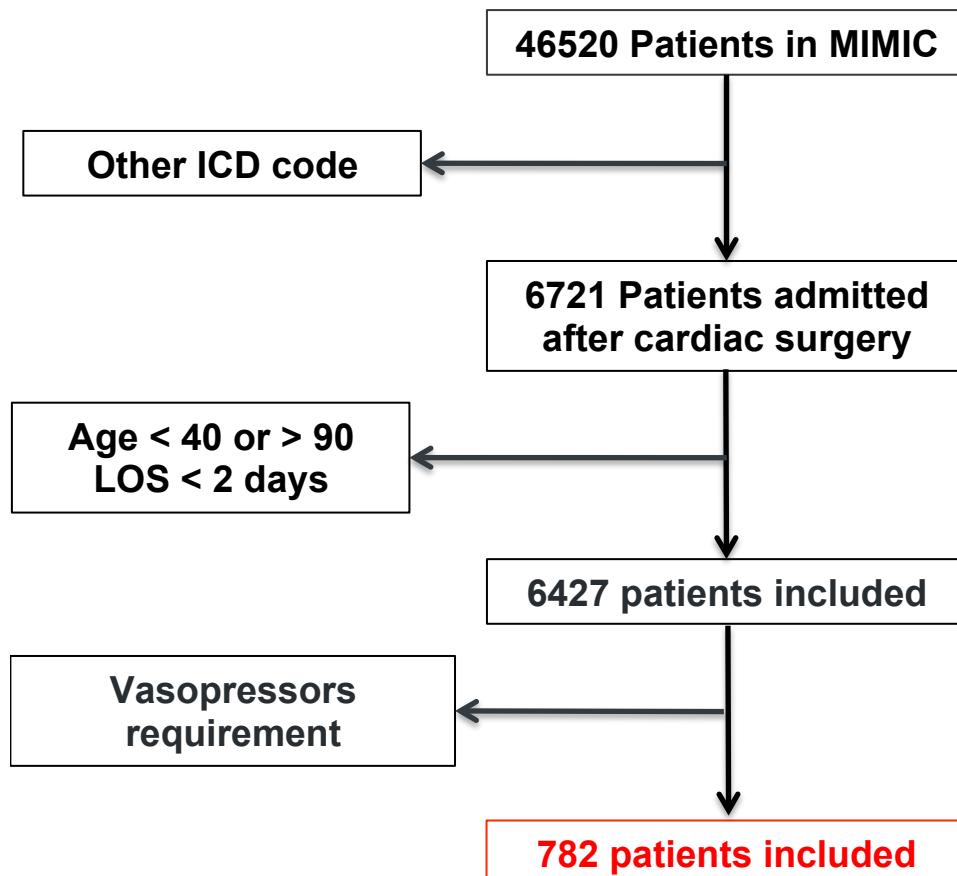
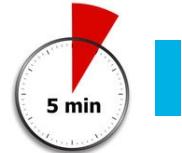


Recursive Least Square

- Adaptive
- Simple
- Interpretable



Population included

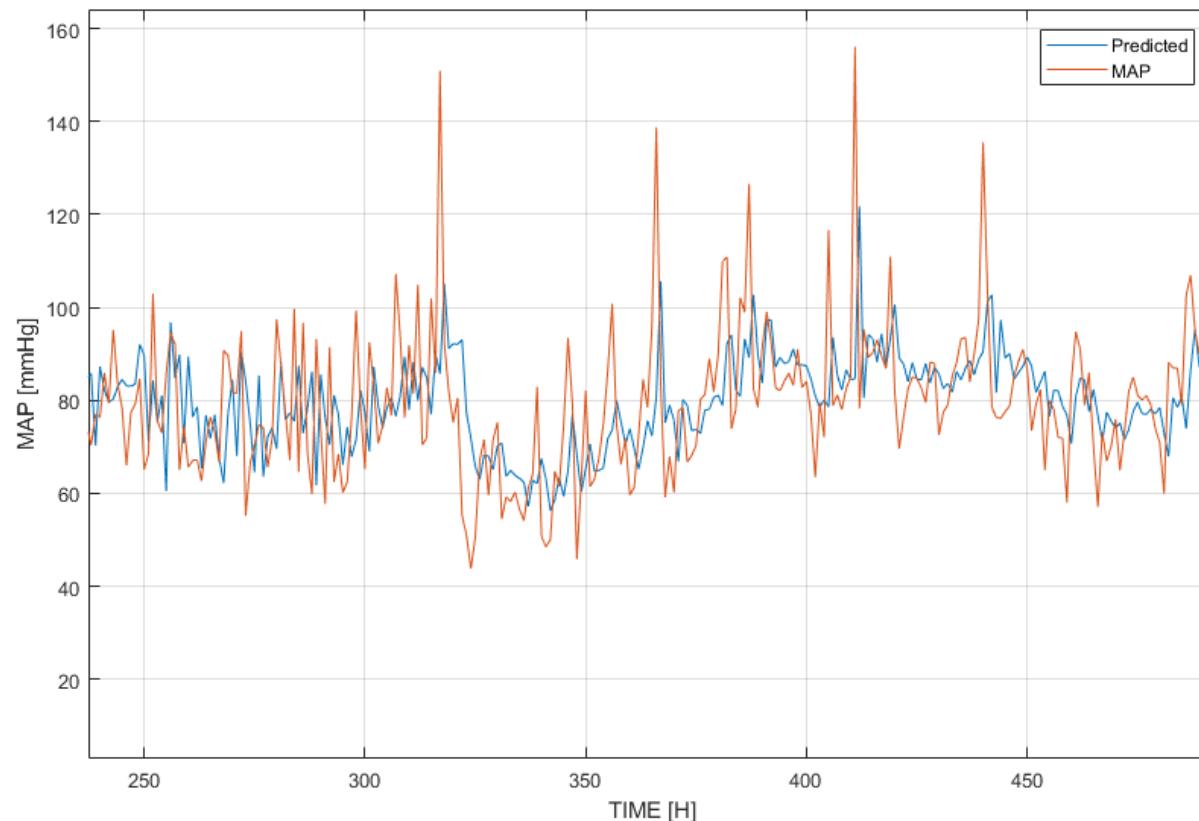


Characteristics	N=782
Age	69 (11)
Length of stay	Med 18 days
Initial SBP/MBP/DBP	113/ 77 /60
Initial HR	86 (14)
Initial SaO ₂	98 (3)
Body weight	85 (21)
Bicarbonate	24 (6)
Lactate	1.7 (1.2)

Results



RMSE=17.8498

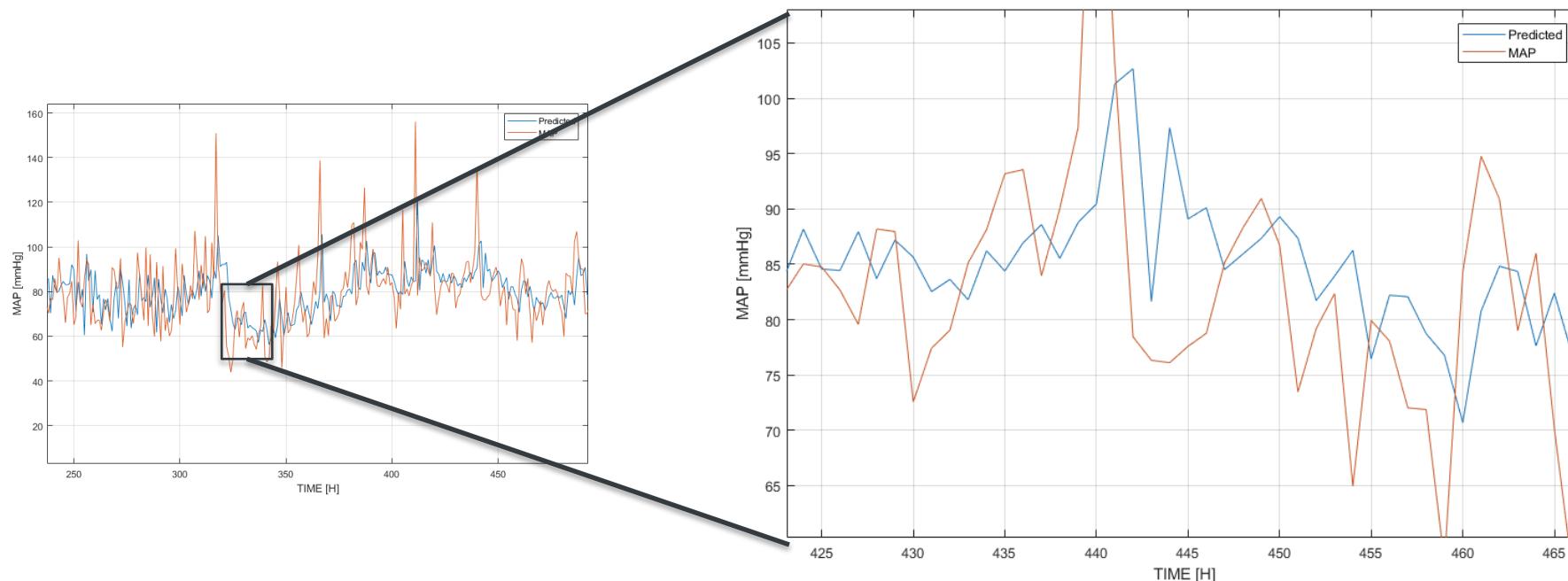


Results



- Your results (either positive or negative, everything is of interest!) (1-2 slides)

RMSE=17.8498





- Preliminary encouraging results
- Limitation
 - Selected patients for population homogeneity
 - Exclusion of vasopressor use
- Perspective
 - Replication of results on whole population
 - External validation on other population ?





Thank you for your attention

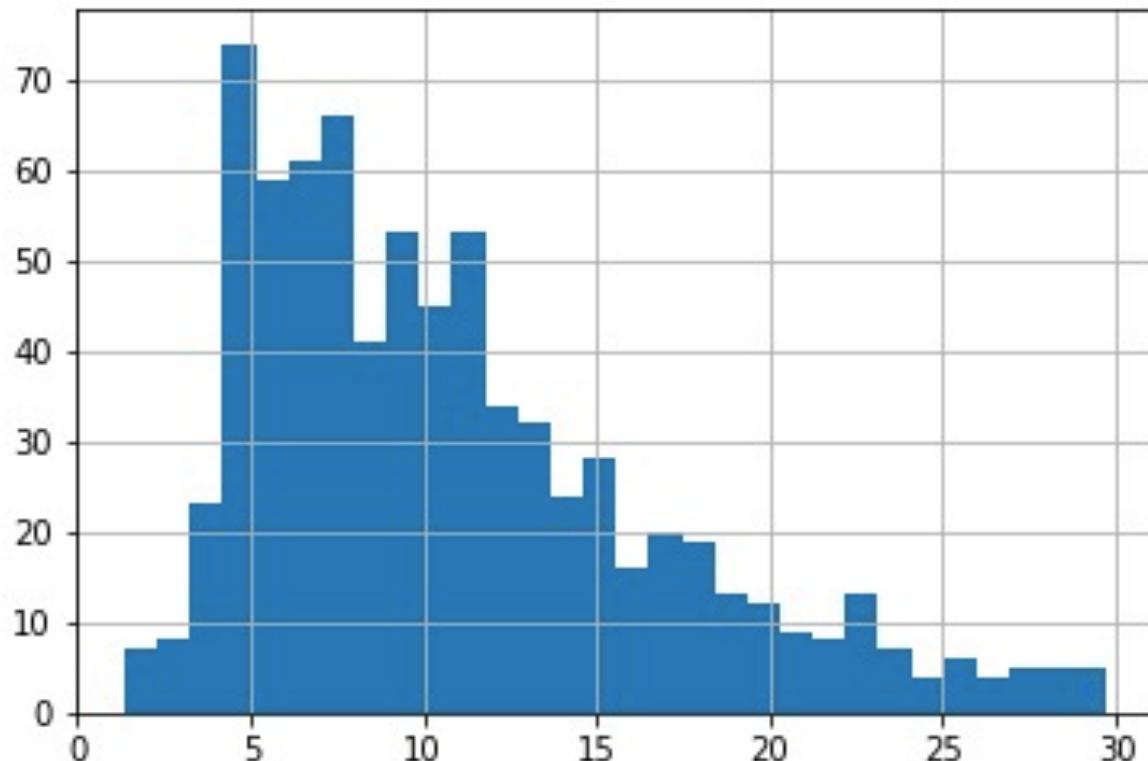
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Lengths of stay in our population





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