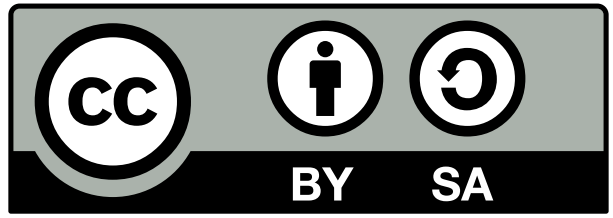


You can download the sources of this presentation here:

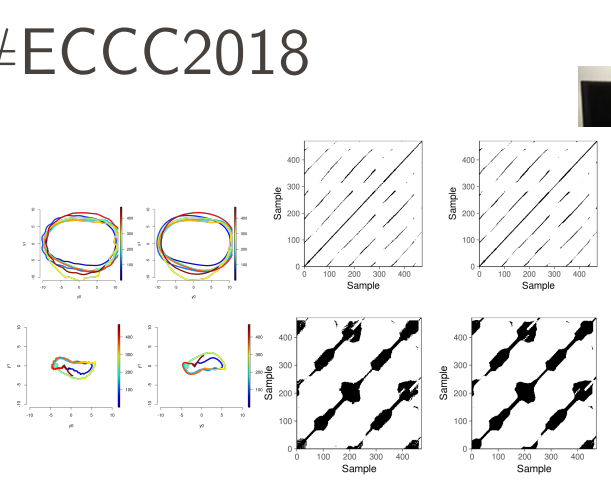
https://github.com/mxochicale/eccc2018

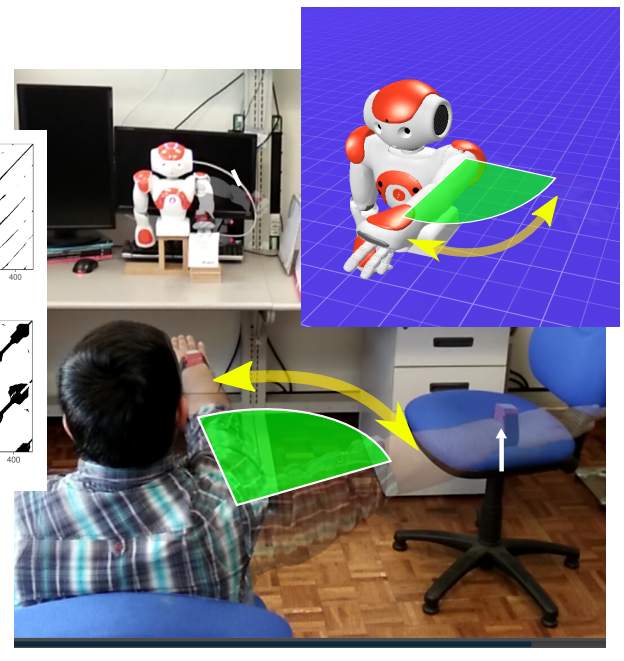
15th EXPERIMENTAL CHAOS & COMPLEXITY CONFERENCE

Quantifying the Inherent Chaos of Human Movement Variability

@ecc15madrid2018 #ECCC2018

Madrid, Spain, 4-7 June 2018





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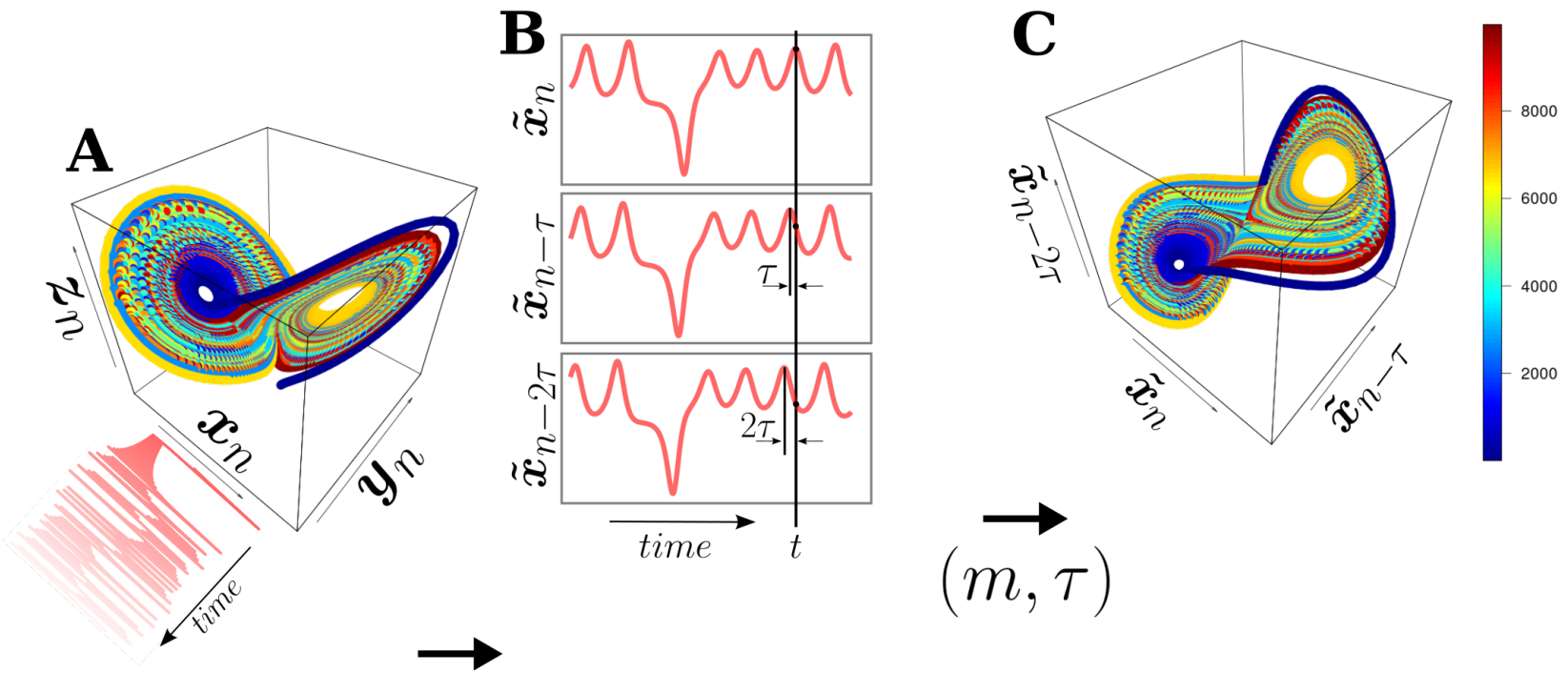
MOVEMENT VARIABILITY

WHAT IS MOVEMENT VARIABILY?

MOVEMENT VARIABILITY is defined as the variations that occur in motor performance across multiple repetitions of a task and such behaviour is an inherent feature within and between each person's movement.

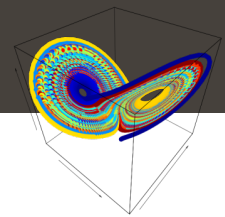
[Lockhart T, Stergiou N, **New Perspectives in Human Movement Variability**, 2013]

PICTURE WITH CREDIT LINE



CONCLUSIONS AND FUTURE WORK

CONCLUSIONS FUTURE WORK



- (+) Quantification for Arm Movement and Head Pose Estimation Variability with Nonlinear Dynamics is possible. However,
- (-) the timeseries from the landmarks are mounted on the pose location of the head.

- Test other techniques of Nonlinear Dynamics, e.g. Lyapunov Exponents, Recurrent Quantification Analysis
- Use of Convolutional Neural Networks for automatic identification of Movement Variability

BIBLIOGRAPHY

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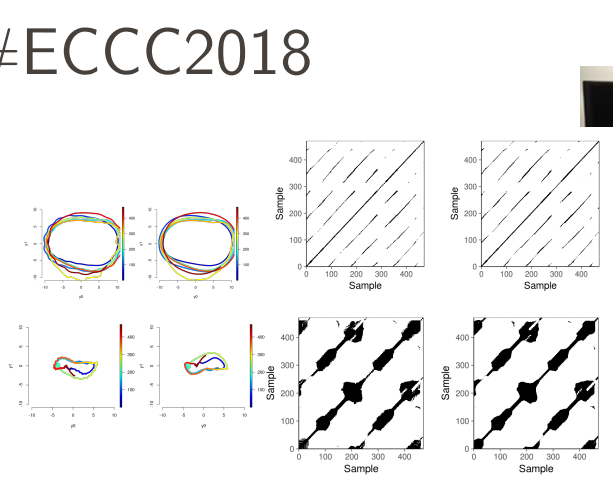

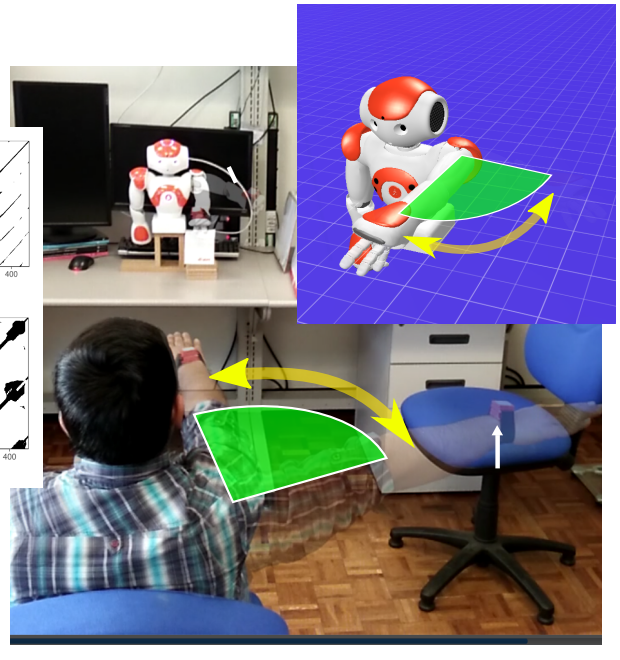

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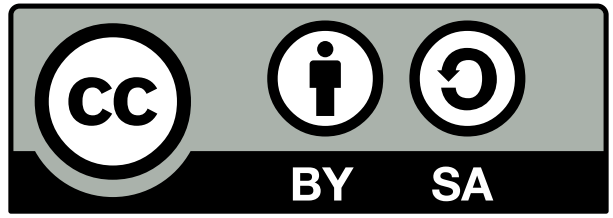

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