

# YQX Plays Chopin

VC Pervasive Computing (WS 2023)

Student Presentation

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# Overview

- Introduction and Motivation
- Art of Expressive Music Performance
- What is YQX and How Does It Work
- Visualization
- Creativity of YQX
- Conclusion

# Introduction and Motivation

- Listen to the following interpretations of Chopin's Nocturne
- <https://www.jku.at/en/institute-of-computational-perception/about-us/people/gerhard-widmer>



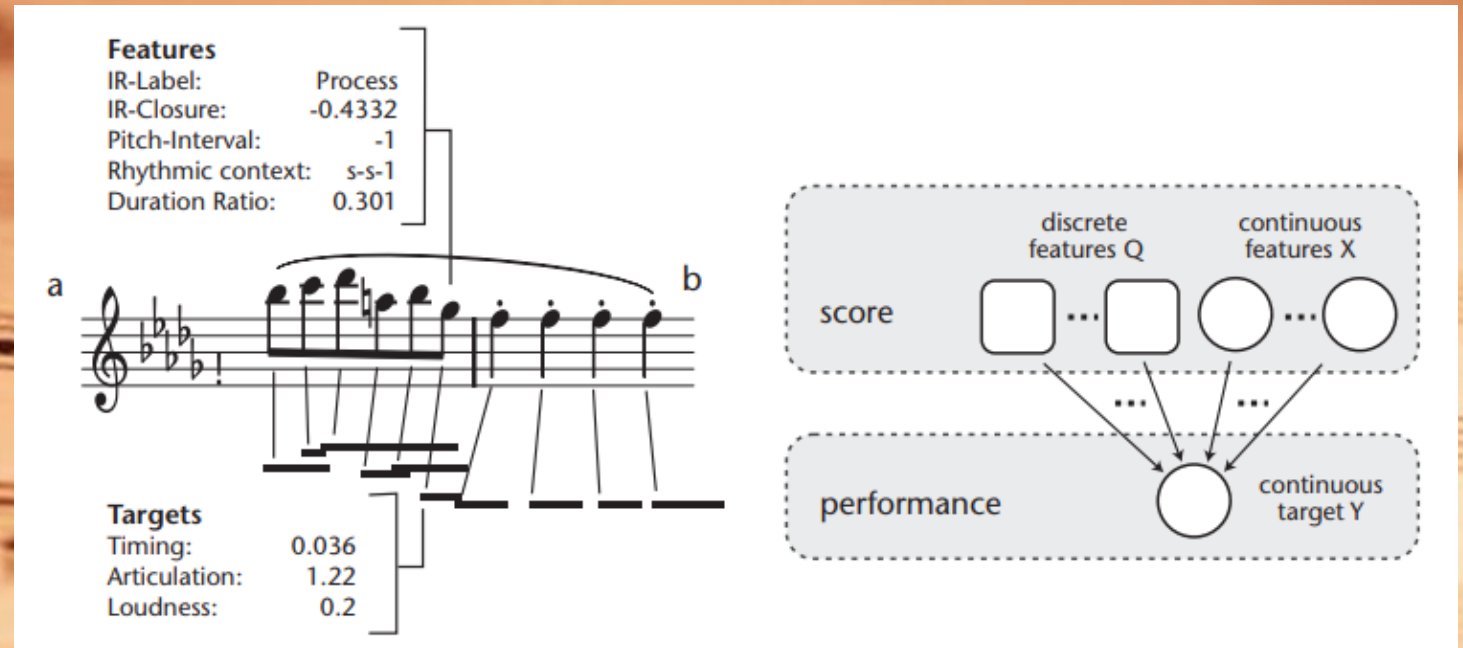
# Art of Expressive Music Performance

- Timing and tempo changes
- Dynamics -> loudness variations
- Articulation -> way, how notes are connected

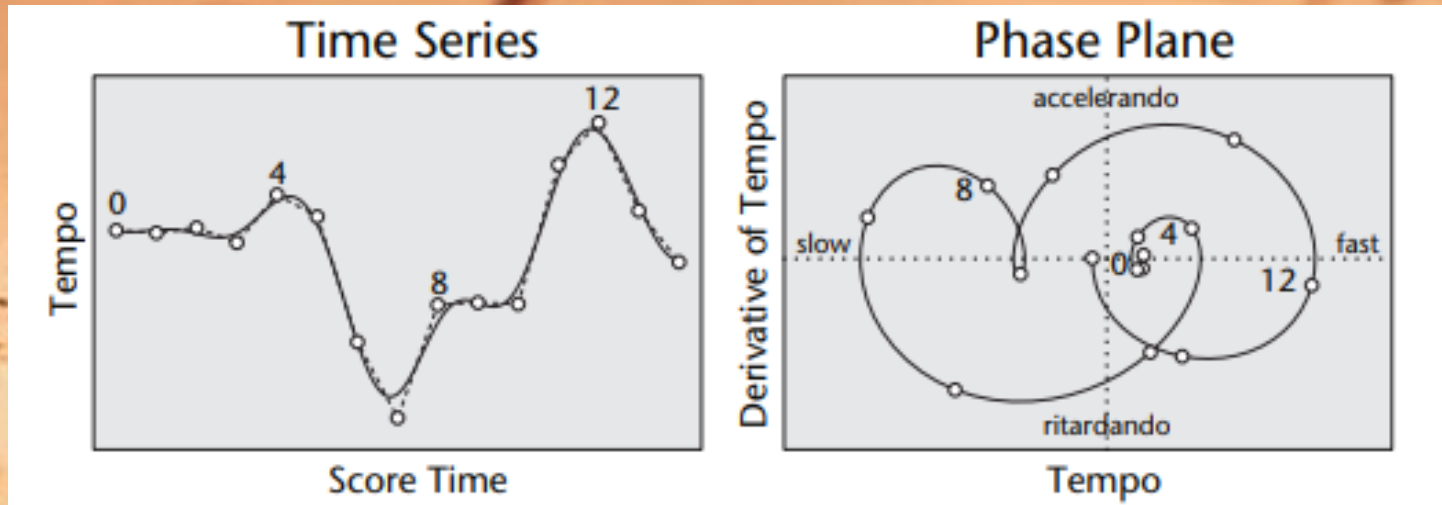
-> Creative act

# What is YQX and How Does It Work

- Machine learning
- Prediction of the expressive dimensions
- Calculate properties from score and performance
- Features and targets



# Visualization



- Time series
- Phase-plane



# Creativity of YQX

- What is creativity and how is it defined?
- Intentionality
- Conscious awareness of form, structure and aesthetics
- Imagination
- Self-evaluation
- Does YQX fulfill these criterions?

# Conclusion

- Help study creative behaviours
- [https://www.youtube.com/watch?v=Wtxcqp-sQ\\_4](https://www.youtube.com/watch?v=Wtxcqp-sQ_4)



# References

- Widmer, G., Flossmann, S., Grachten, M. (2009). YQX Plays Chopin. *AI Magazine*, 30(3), 35.  
<https://doi.org/10.1609/aimag.v30i3.2249>
- <https://www.jku.at/en/institute-of-computational-perception/about-us/people/gerhard-widmer>
- <http://renconmusic.org/> (in maintenance)
- [https://en.wikipedia.org/wiki/Nikita\\_Magaloff](https://en.wikipedia.org/wiki/Nikita_Magaloff)