## **Repeating Sequence Length Estimation** in Time Series Author: Jakub Ševcech Supervisor: prof. Mária Bieliková

• Representing repeating sequences as symbols

## Incremental transformation

- Splitting to sequences
- Sequence clustering
- Cluster identifiers as symbols
- Symbol (repeating sequence) length estimation
- Autocorrelation vs. Repetitivity Ο
- **Evaluation on synthetic datasets with** known symbol lengths
- Comparison on real-world datasets

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(time)

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Symbol	Symbol	Noise	Repetitivity	Autocorrelation	
number	lengths	NOISE	accuracy	accuracy	
1	20	-	92%	100%	
1	20	0.05	89%	100%	
1	20	0.01	95%	100%	5 v T
3	20	-	76%	95%	
3	20	0.05	73%	90%	B8 Autoc
5	20	-	54%	93%	
5	20	0.05	52%	82%	
10	20	-	29%	54%	8 - 1 - 1
10	20	0.05	20%	55%	
1	15,20	-	8%	62%	_ 64 Lang
3	15,20	-	3%	45%	ې لې
5	15 <mark>,20</mark>	-	4%	22%	





Window size

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