

## Article

# Machine Recognition of DDoS Attacks Using Statistical Parameters

Juraj Smiesko , Pavel Segec  and Martin Kontsek \* 

Department of InfoComm Networks, Faculty of Management Science and Informatics, University of Zilina,  
010 26 Zilina, Slovakia

\* Correspondence: martin.kontsek@fri.uniza.sk



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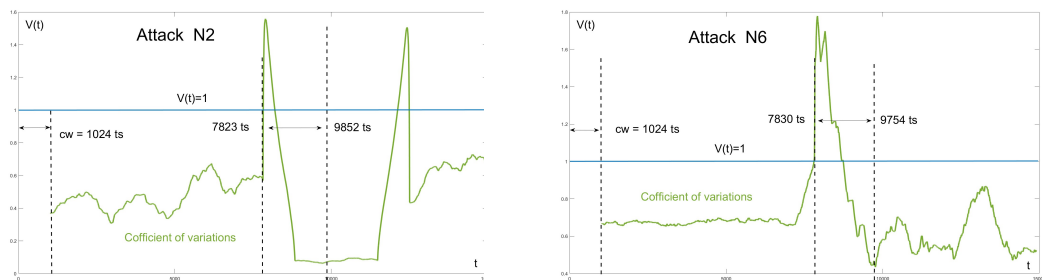
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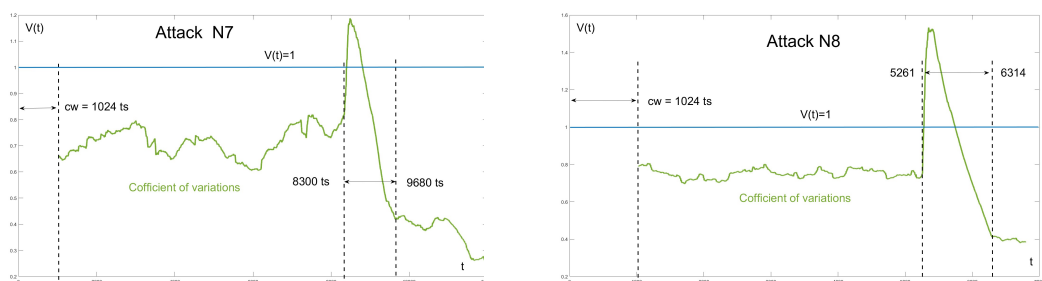
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## 1. Supplementary material

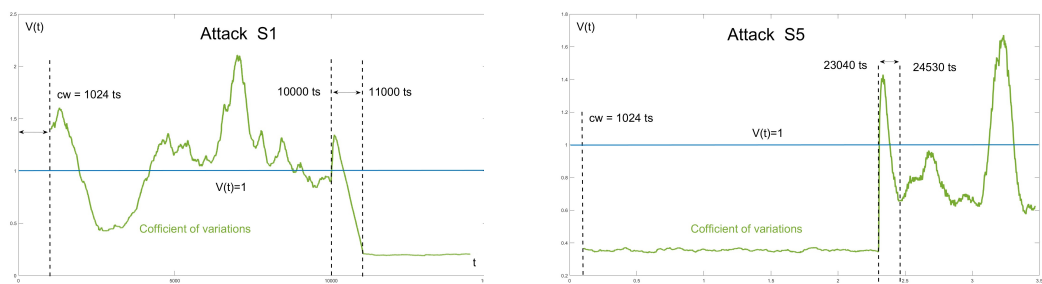
### 1.1. Coefficient of Variation



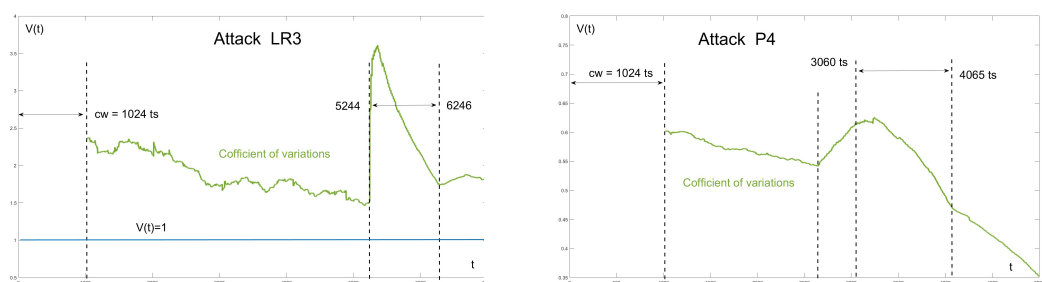
**Figure S1.** Coefficient of Variation - Attack N2, Attack N6.



**Figure S2.** Coefficient of Variation - Attack N7, Attack N8.



**Figure S3.** Coefficient of Variation - Attack S1, Attack S5.



**Figure S4.** Coefficient of Variation - Attack LR3, Attack P4.

## 1.2. Kurtosis coefficient

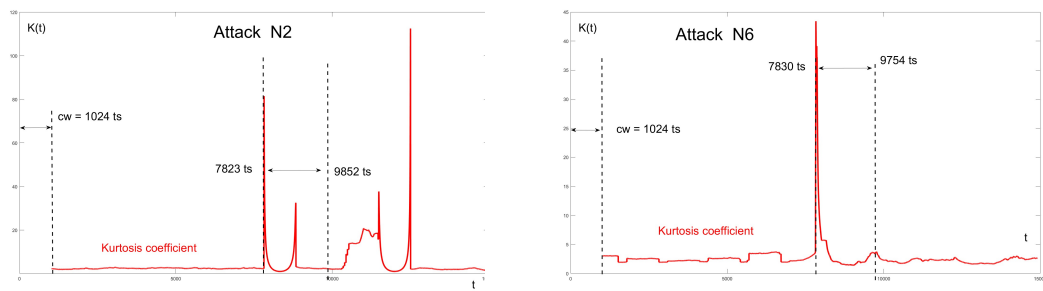


Figure S5. Kurtosis coefficient - Attack N2, Attack N6.

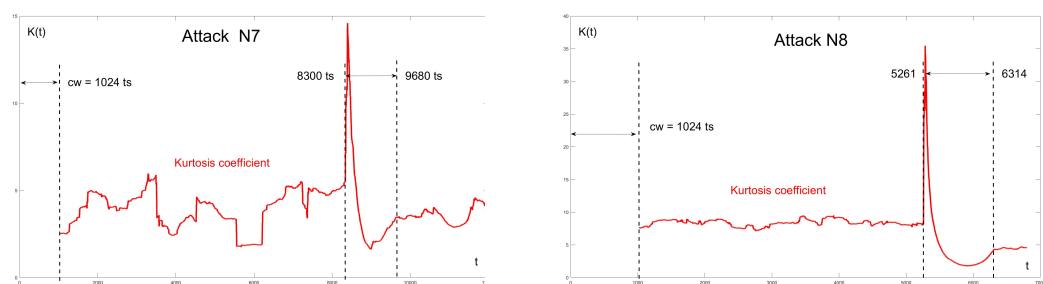


Figure S6. Kurtosis coefficient - Attack N7, Attack N8.

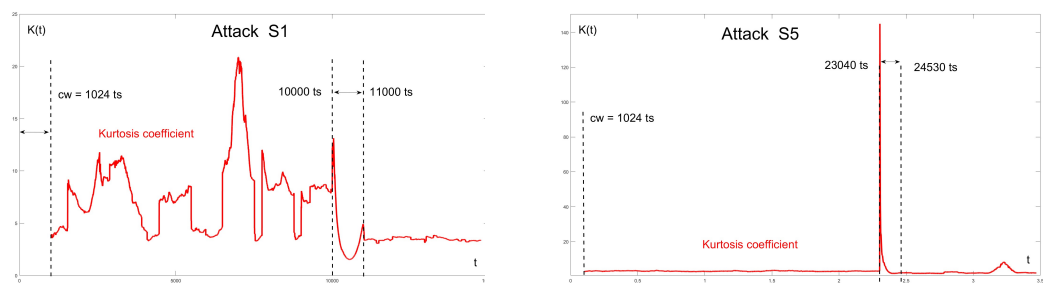


Figure S7. Kurtosis coefficient - Attack S1, Attack S5.

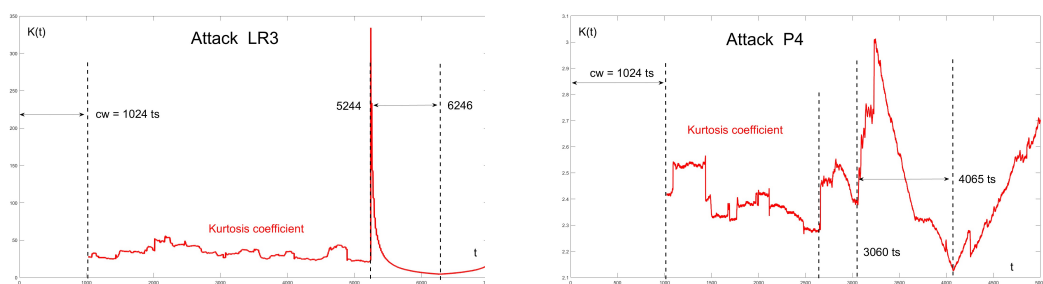


Figure S8. Kurtosis coefficient - Attack LR3, Attack P4.

### 1.3. Skewness coefficient

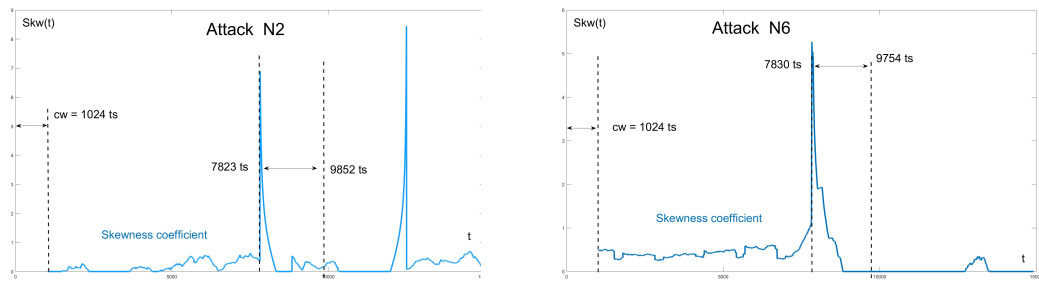


Figure S9. Skewness coefficient - Attack N2, Attack N6.

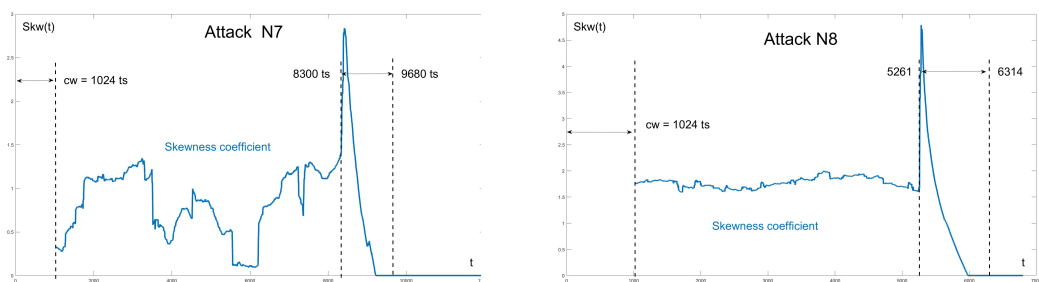


Figure S10. Skewness coefficient - Attack N7, Attack N8.

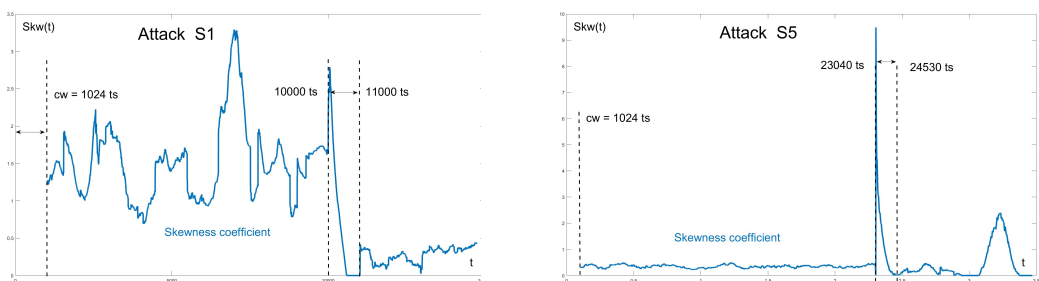


Figure S11. Skewness coefficient - Attack S1, Attack S5.

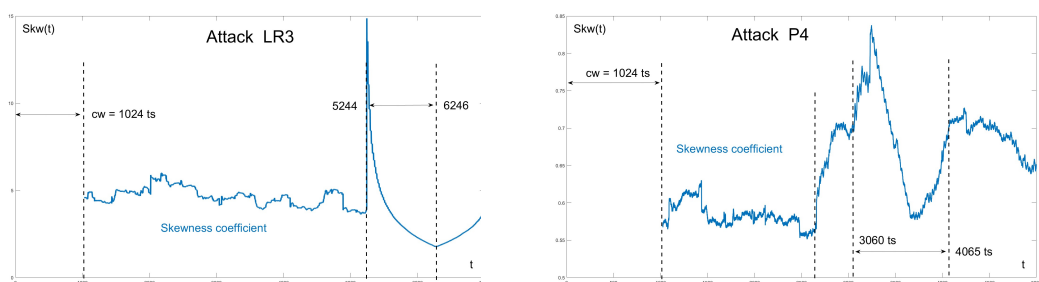


Figure S12. Skewness coefficient - Attack LR3, Attack P4.



## 1.4. Entropy

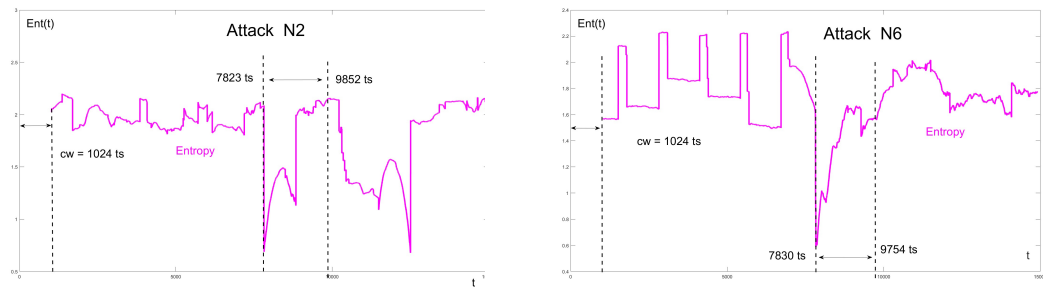


Figure S13. Entropy - Attack N2, Attack N6.

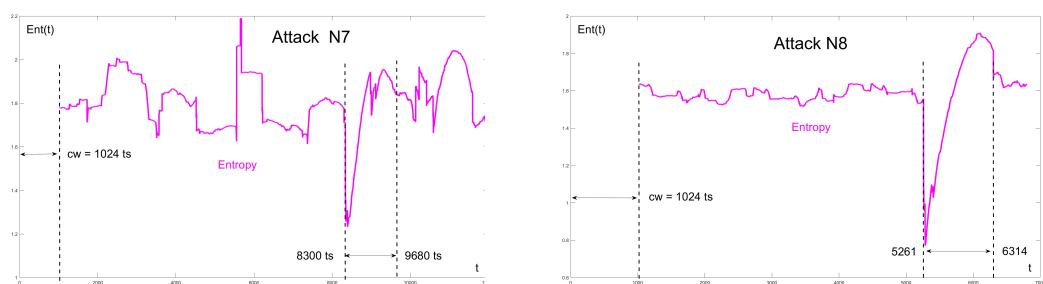


Figure S14. Entropy - Attack N7, Attack N8.

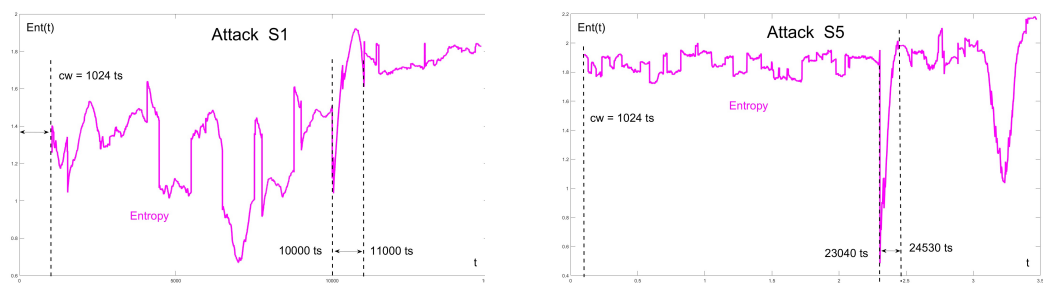


Figure S15. Entropy - Attack S1, Attack S5.

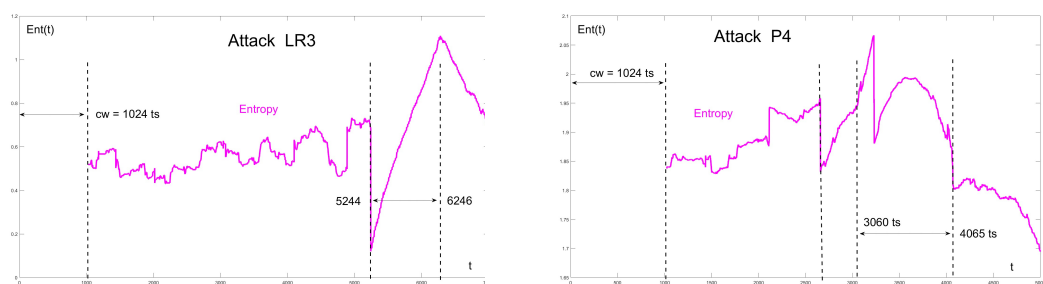


Figure S16. Entropy - Attack LR3, Attack P4.

## 1.5. Hurst exponent

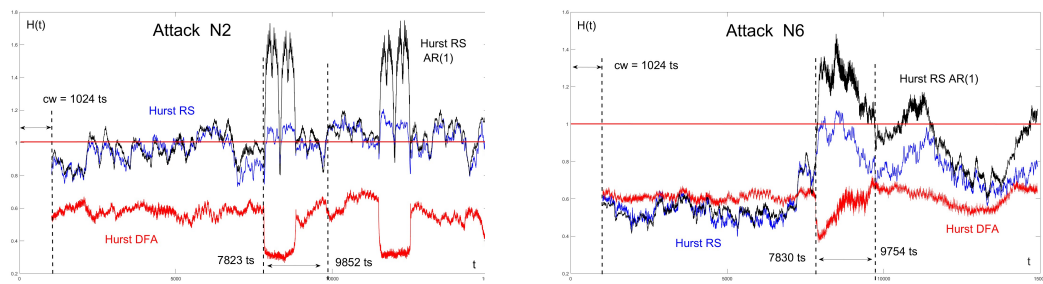


Figure S17. Hurst exponent - Attack N2, Attack N6.

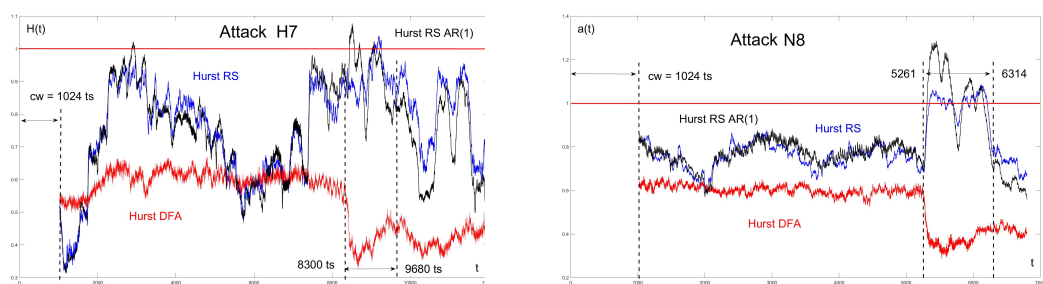


Figure S18. Hurst exponent - Attack N7, Attack N8.

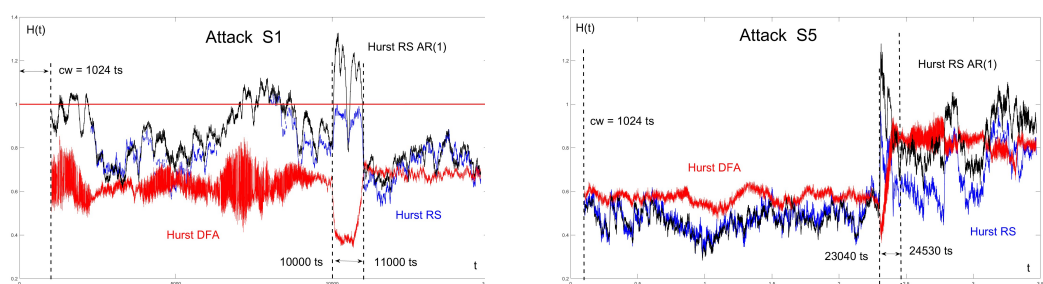


Figure S19. Hurst exponent - Attack S1, Attack S5.

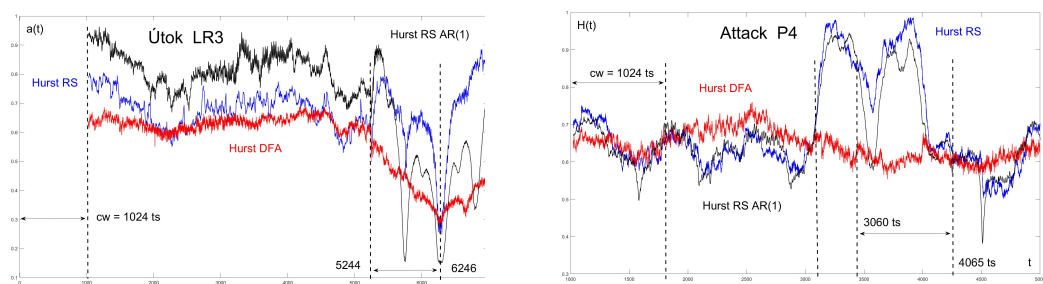


Figure S20. Hurst exponent - Attack LR3, Attack P4.

### 1.6. Autoregression coefficient

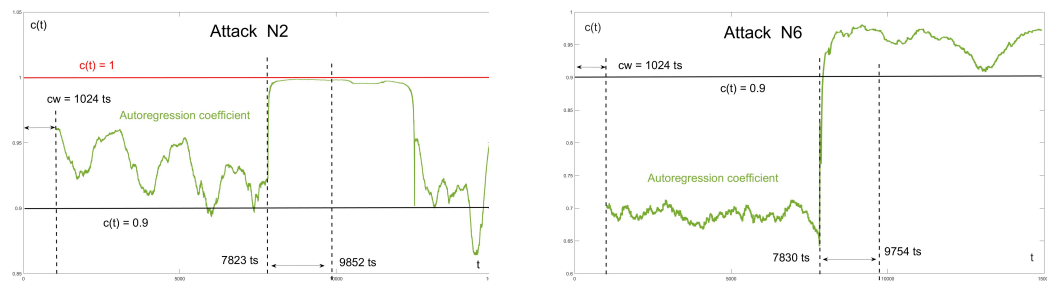


Figure S21. Autoregression coefficient - Attack N2, Attack N6.

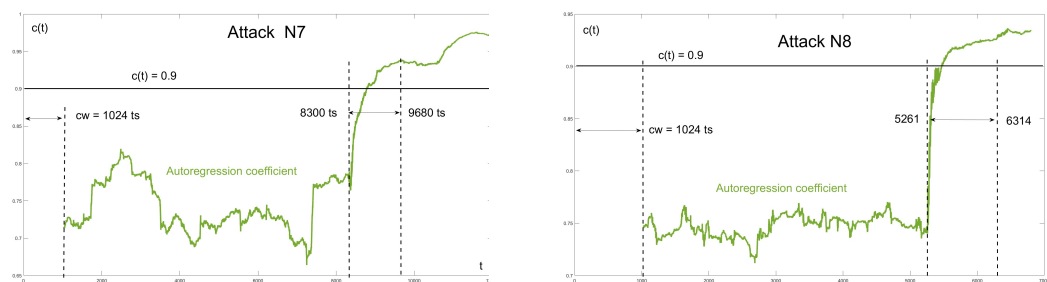


Figure S22. Autoregression coefficient - Attack N7, Attack N8.

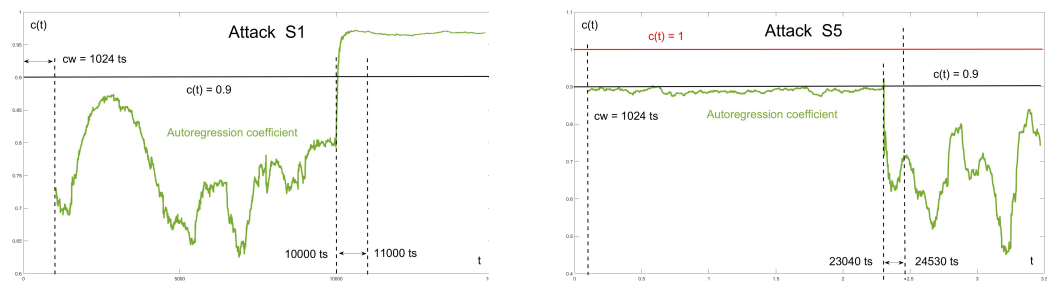


Figure S23. Autoregression coefficient - Attack S1, Attack S5.

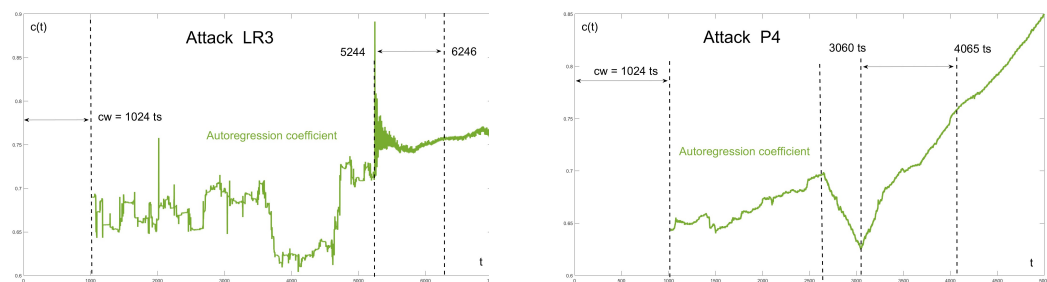


Figure S24. Autoregression coefficient - Attack LR3, Attack P4.

## 1.7. Correlation coefficient

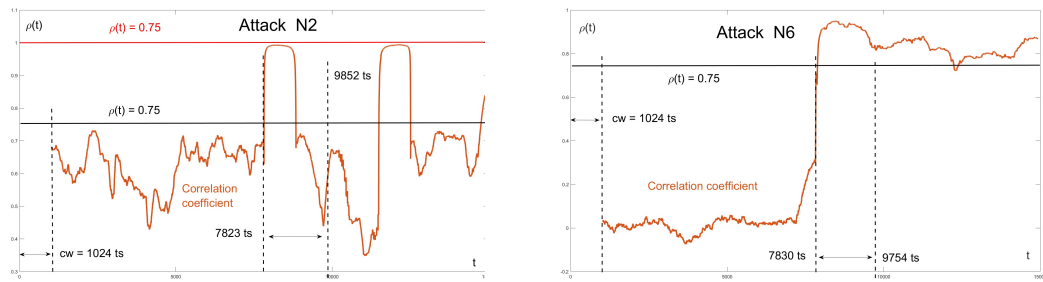


Figure S25. Correlation coefficient - Attack N2, Attack N6.

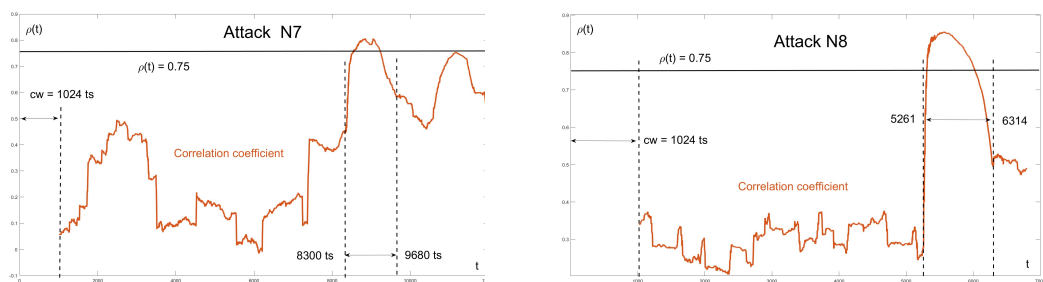


Figure S26. Correlation coefficient - Attack N7, Attack N8.

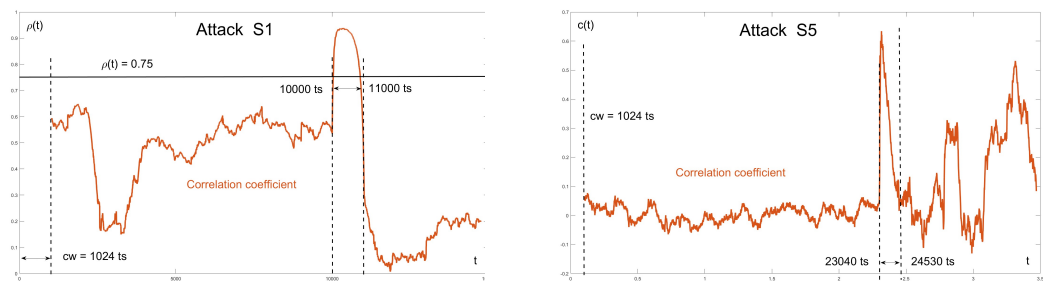


Figure S27. Correlation coefficient - Attack S1, Attack S5.

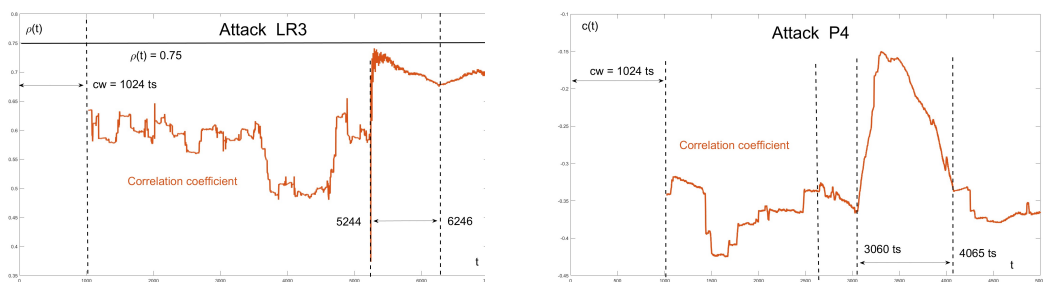


Figure S28. Correlation coefficient - Attack LR3, Attack P4.

## 1.8. Kullback-Leibler divergence

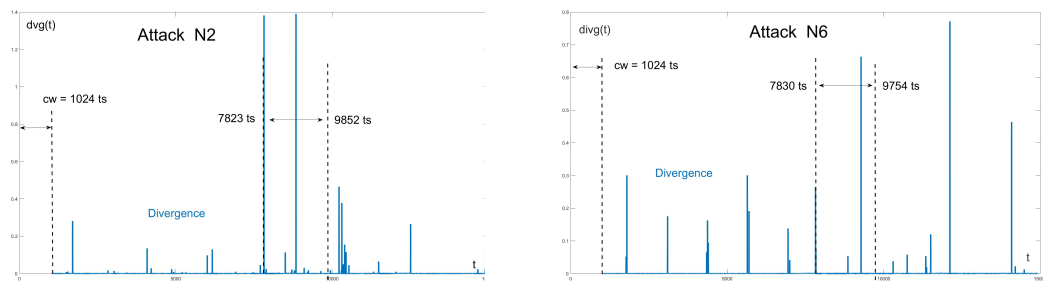


Figure S29. Kullback-Leibler divergence - Attack N2, Attack N6.

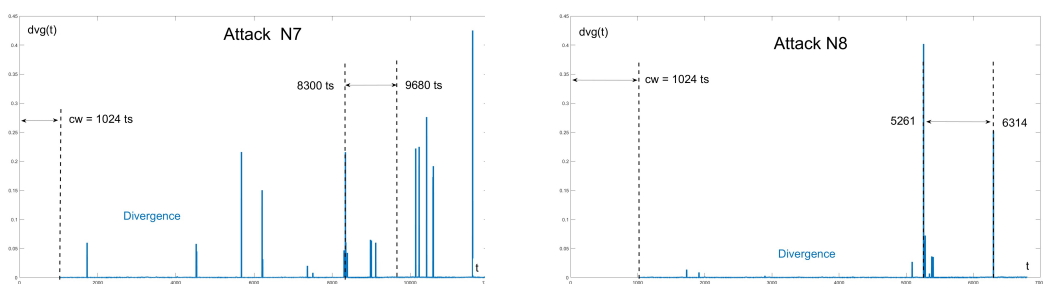


Figure S30. Kullback-Leibler divergence - Attack N7, Attack N8.

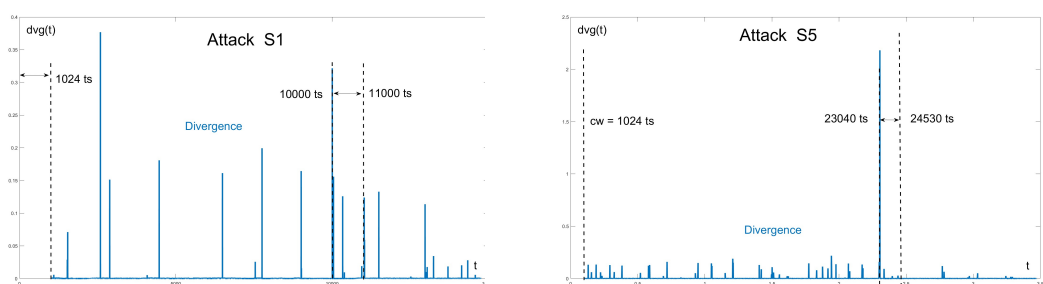


Figure S31. Kullback-Leibler divergence - Attack S1, Attack S5.

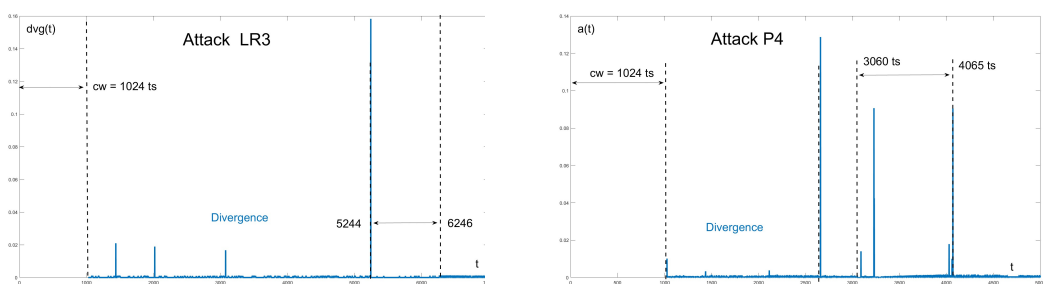


Figure S32. Kullback-Leibler divergence - Attack LR3, Attack P4.