Review: Inductive Conformal Martingales for Change-Point Detection

Norio Kosaka

December 25, 2018

1 Paper Profile

- Title: Inductive Conformal Martingales for Change-Point Detection Predictors
- Author: Denis Volkhonskiy, Evgeny Burnaev, Ilia Nouretdinov, Alexander Gammerman, Vladimir Vovk
- Publish Year: 2017

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3 Summary

In this paper, they have present a study about an adaptation of Conformal Martingales for change-point detection in data stream problem. In fact, the classical approaches, such as CUSUM, Shiryaev-Roberts and Posterior probability statistics, are optimal only if the change-point model is known, which is an unrealistic assumption in typical applied problems. Hence, they proposed the approach for change-point detection based on Inductive Conformal Martingales, which requires IID assumption. And they have examined the approaches, such as ICM LR, ICM kNN, CUSUM Oracle, S-R Oracle, Posterior Oracle. The results show that the efficiency of change-point detection based on conformal martingales in most of cases is comparable with other approaches.