

Prediction of quantiles by statistical learning and application to GDP forecasting

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We tackle the problem of prediction and confidence intervals for time series using a statistical learning approach and quantile loss functions. In a first time, we show that the Gibbs estimator (also known as Exponentially Weighted aggregate) is able to predict as well as the best predictor in a given family. Using the quantile loss function, this also allows to propose confidence intervals. We apply these results to the problem of prediction and confidence regions for the Gross Domestic Product (GDP), with promising results.