

# Conformal Prediction in 2023

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Conformal inference methods are becoming all the rage in academia and industry alike. In a nutshell, these methods deliver exact prediction intervals for future observations without making any distributional assumption whatsoever other than having iid, and more generally, exchangeable data. This talk will review the basic principles underlying conformal inference and survey some major contributions that have occurred in the last 2-3 years or. We will discuss enhanced conformity scores applicable to quantitative as well as categorical labels. We will also survey novel methods which deal with situations, where the distribution of observations can shift drastically — think of finance or economics where market behavior can change over time in response to new legislation or major world events, or public health where changes occur because of geography and/or policies. All along, we shall illustrate the methods with examples including the prediction of election results or COVID19-case trajectories.