Classification of ADHD and non-ADHD using AR models.

Lopez Marcano JL, Bell MA, Beex AA.


Abstract

Accurate and confident diagnosis of ADHD is highly dependent on subjective observations. Several quantitative methods have been proposed, posing it as a two-class classification problem (ADHD and non-ADHD). However, the results have not made it past the research stage yet, as misclassification rates must be close to 0%. This study aims to discriminate ADHD and non-ADHD subjects using autoregressive models, with a high level of accuracy (85-95%). In addition, a confidence metric is proposed, expressing with how much confidence the classification of ADHD and non-ADHD subjects is made.