Algorithm Description

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The used algorithm consists of the following processing steps
(1) Preprocessing: CAR
(2) Feature extraction: We combined two kinds of features: CSP feature and the coefficients of AR model. The CSP feature was extracted from the frequency bands of Mu rhythm(8- 12Hz). The AR model coefficients were extracted using burg algorithm.
(3) Channel selection: For CSP feature, we used Fisher ratio for selecting channels; for AR model coefficients, we used sparse fisher discriminant for selecting channels.
(4) Classification : semi-supervised learning (self training) based on a quadratic classifier.