Elements of Machine learning in Healthcare

- Machine learning and the «data life cycle»
- Validation and classification metrics
- Feature extraction
- Feature selection
- ML classifiers

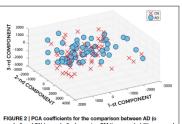


FIGURE 2 | PCA coefficients for the comparison between AD (o symbol) and CN (x symbol) when using GM tissue probability map and an isotropic Gaussian kernel with 10 mm<sup>3</sup> FWHM for smoothing. 1st, 2nd, and 3rd compone

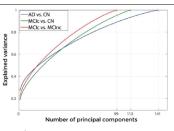


FIGURE 3 | Explained Variance as a function of the number of considered Principal Components, when using GM tissue probability map and no smoothing, for the following comparisons: AD vs. CN, MCIc vs. CN, MCIc vs. MCInc.

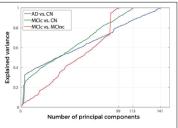


FIGURE 4 | Explained Variance as a function of the number of considered principal components sorted in accordance to their FDR, when using 6M tissue probability map and no smoothing, for the following comparisons: AD vs. CN, MClc vs. CN, MClc vs. MClnc.

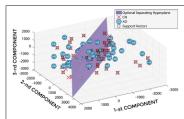
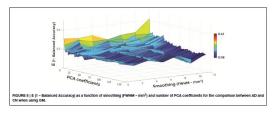
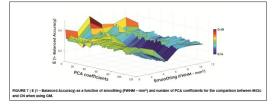
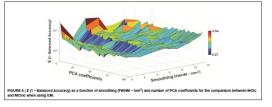


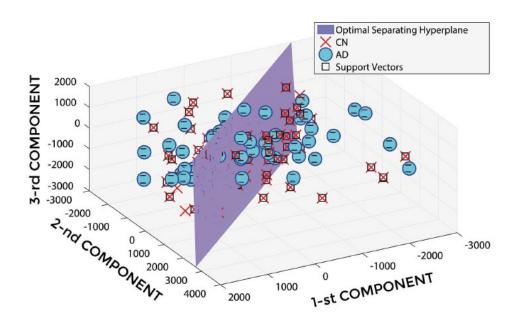
FIGURE 5 | Hyper-plane plane separating AD (a symbol) from CN (x symbol) PCA coefficients), and defined Support Vectors (D symbol), when using GM tissue probability map and an isotropic Gaussian kernel with 10 mm<sup>3</sup> FWHM for smoothing, 1st, 2nd, and 3nd components are shown.



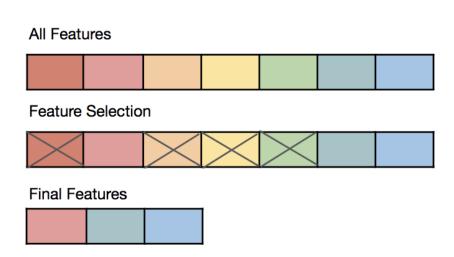




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