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A new unified framework for the early detection of the progression to diabetic retinopathy from fundus images

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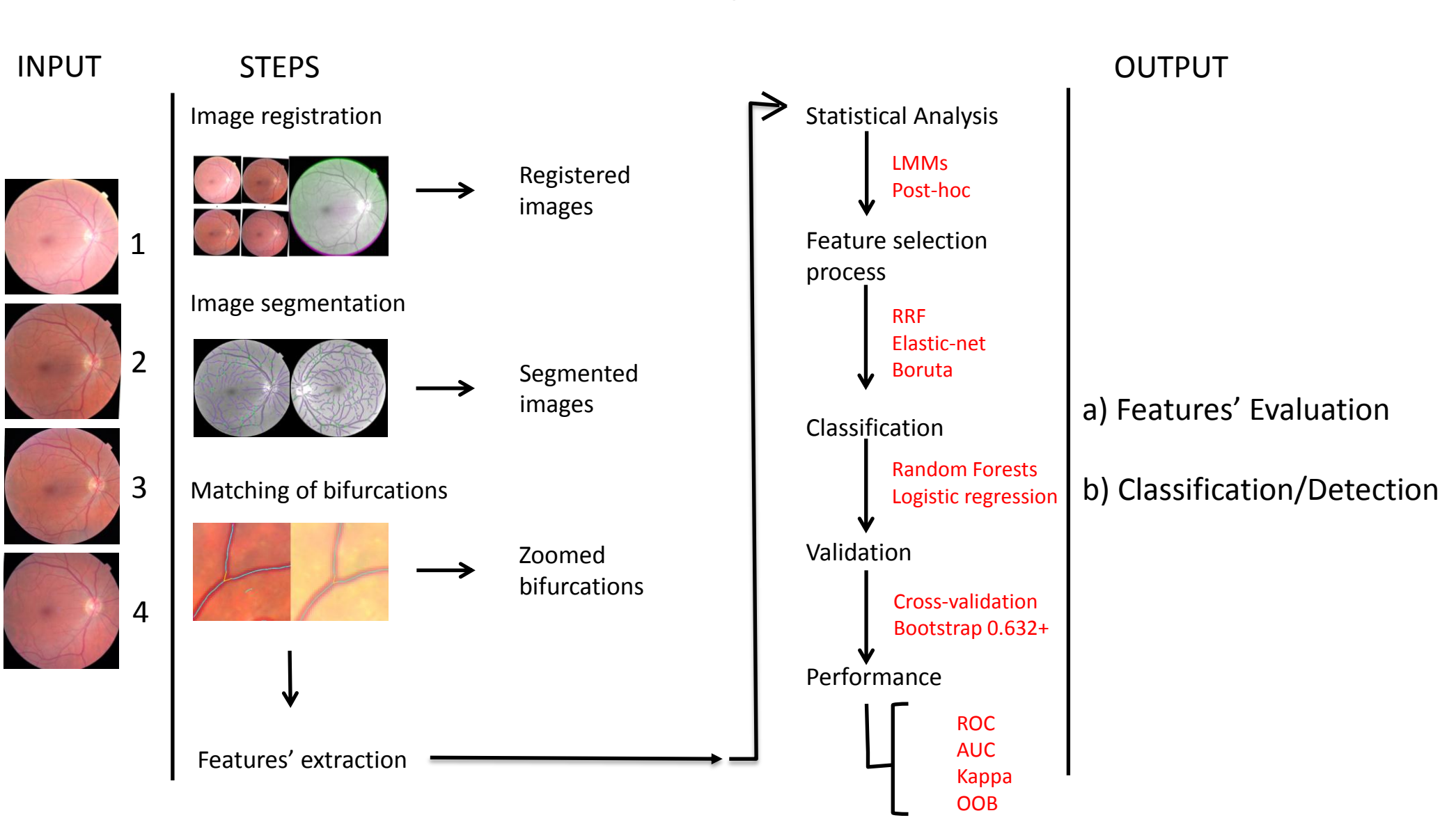
FRiAReD
INPUT
STEPS
OUTPUT
1
2
3
4
Image registration
Registered images
Image segmentation
Segmented images
Matching of bifurcations
Zoomed bifurcations
Features' extraction
Statistical Analysis
LMMs
Post-hoc
Feature selection process
RRF
Elastic-net
Boruta
Classification
Random Forests
Logistic regression
Validation
Cross-validation
Bootstrap 0.632+
Performance
ROC
AUC
Kappa
OOB
a) Features' Evaluation
b) Classification/Detection