



Statistics and Applications

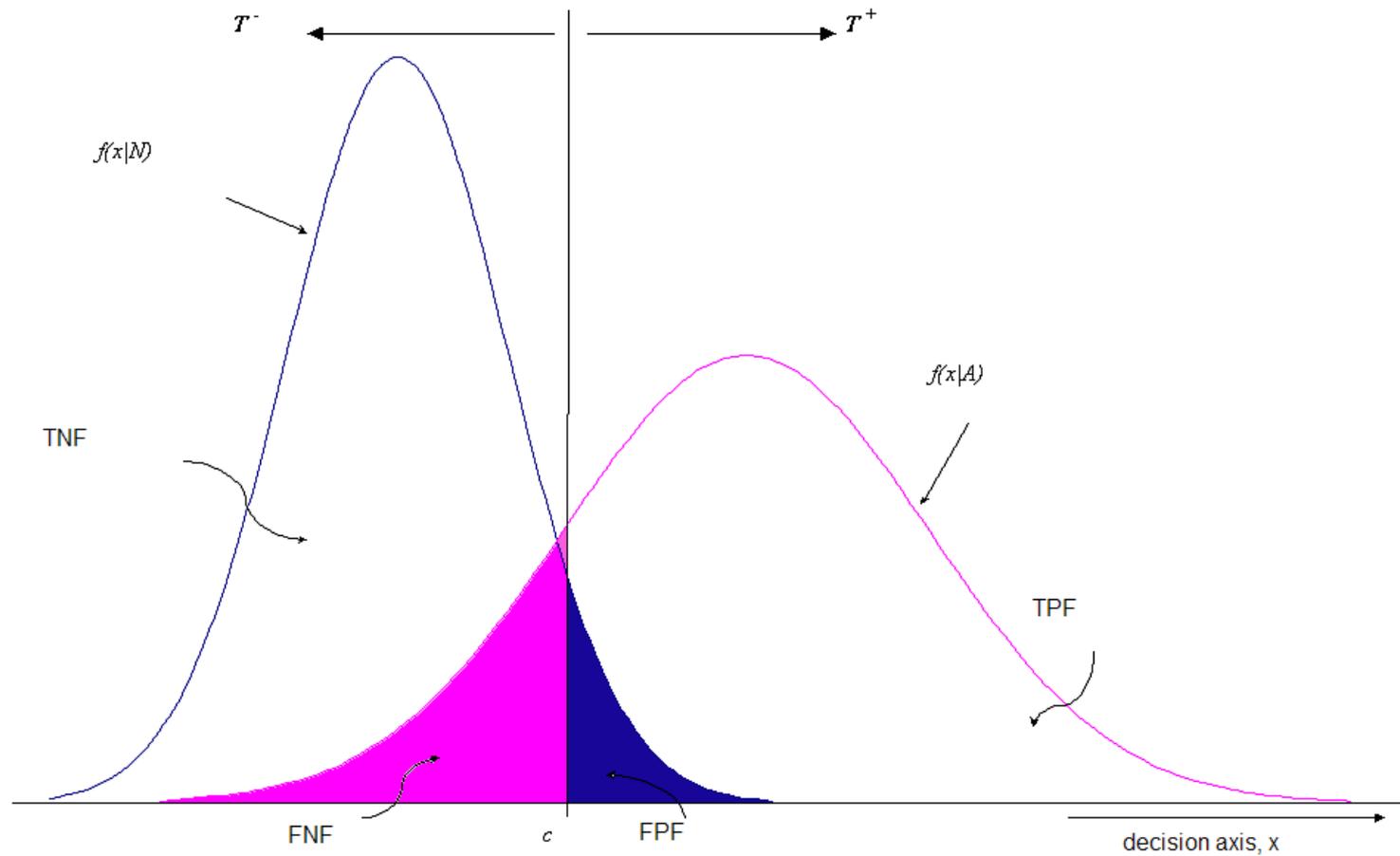
Ana Cristina Braga

NSOS - Nonlinear Systems Optimization and Statistics

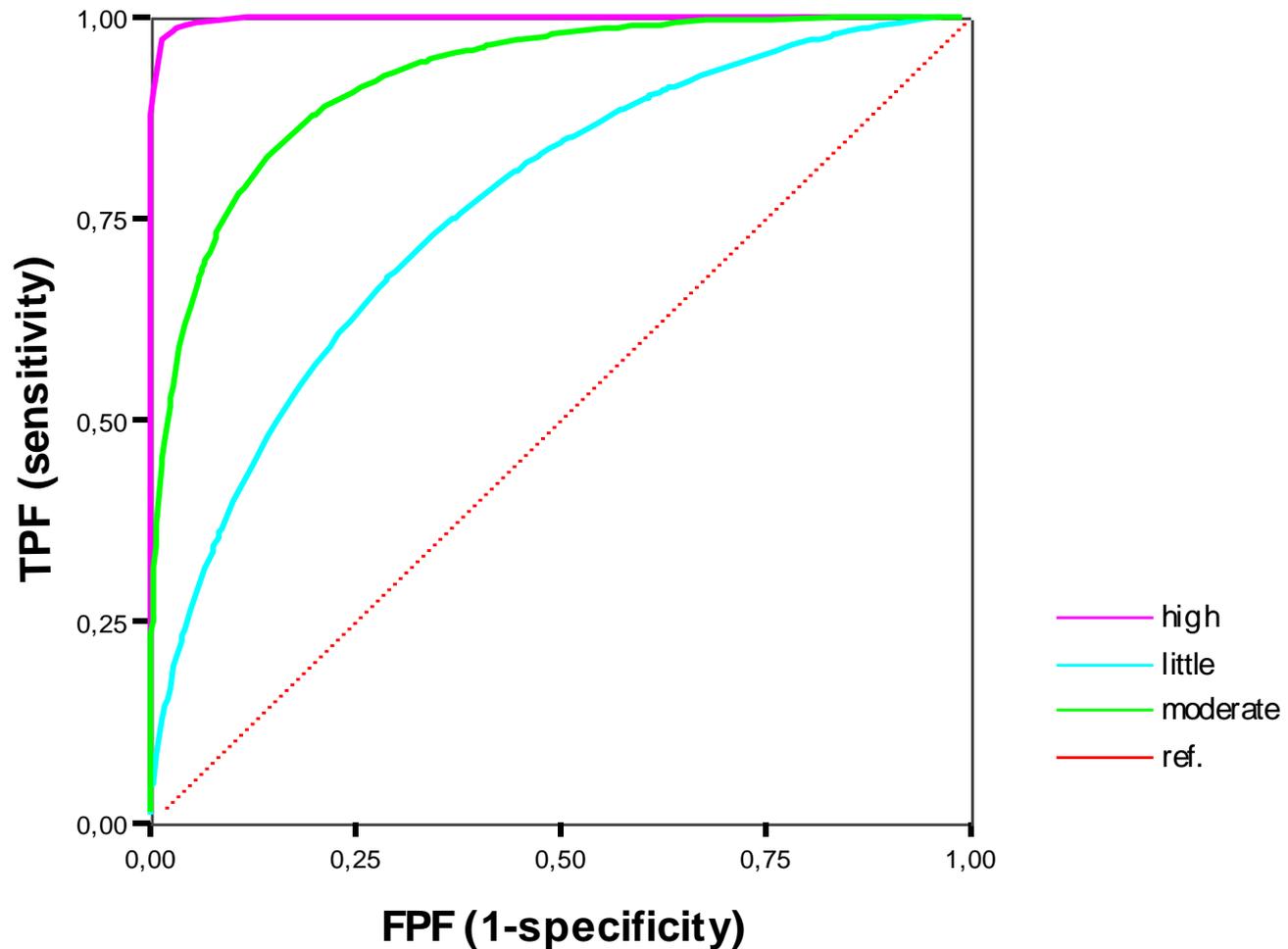
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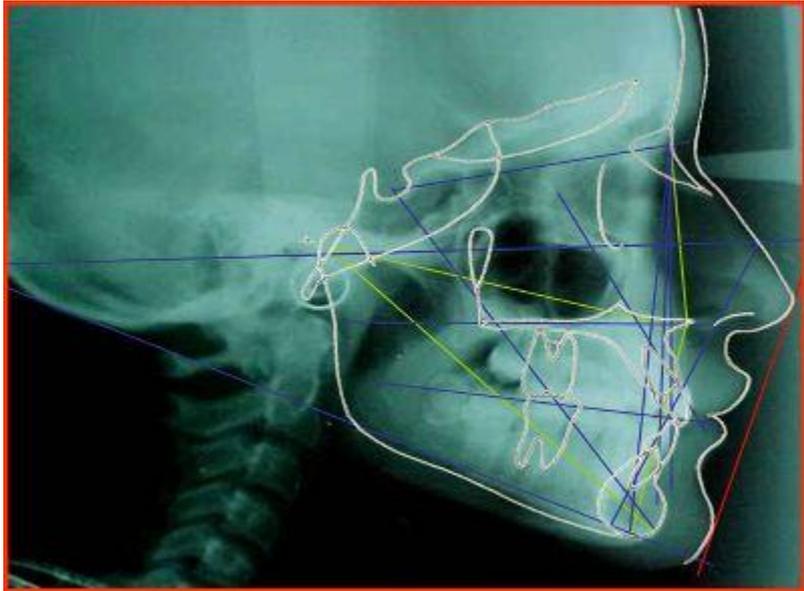
Decision problems



Decision problems

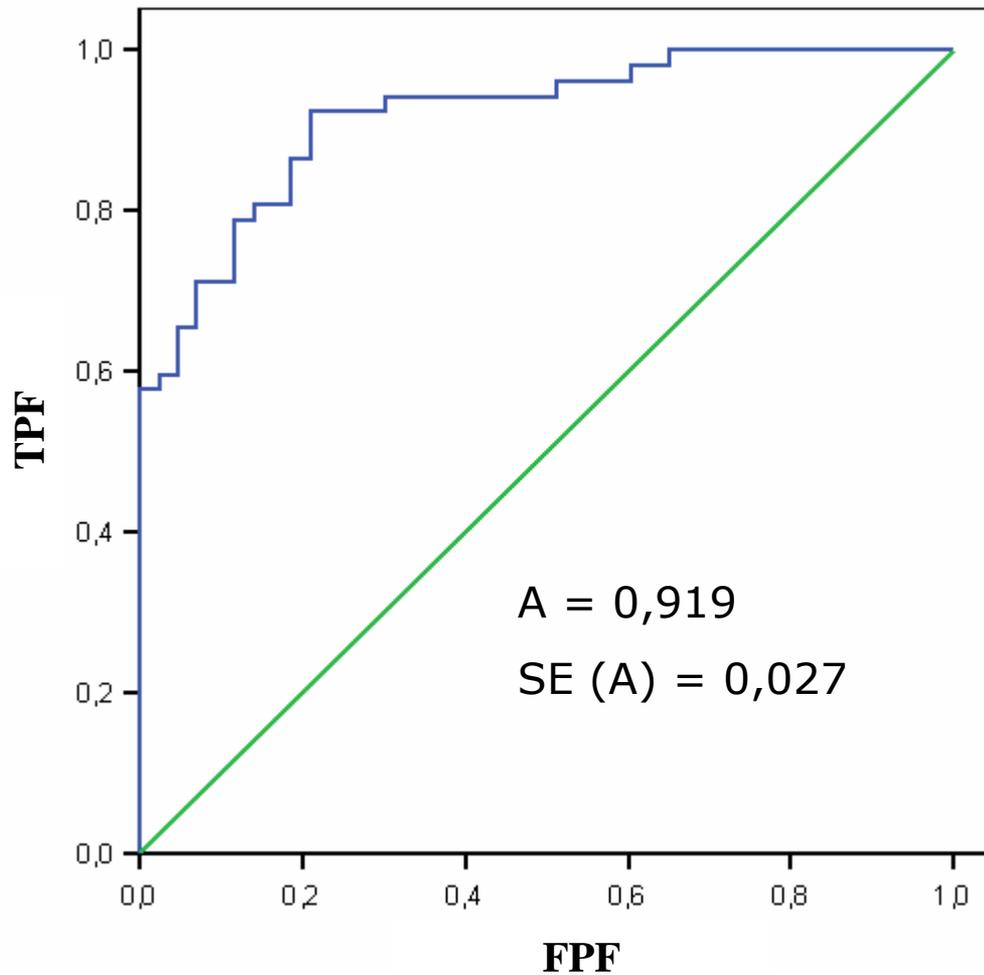


Statistical Modelling

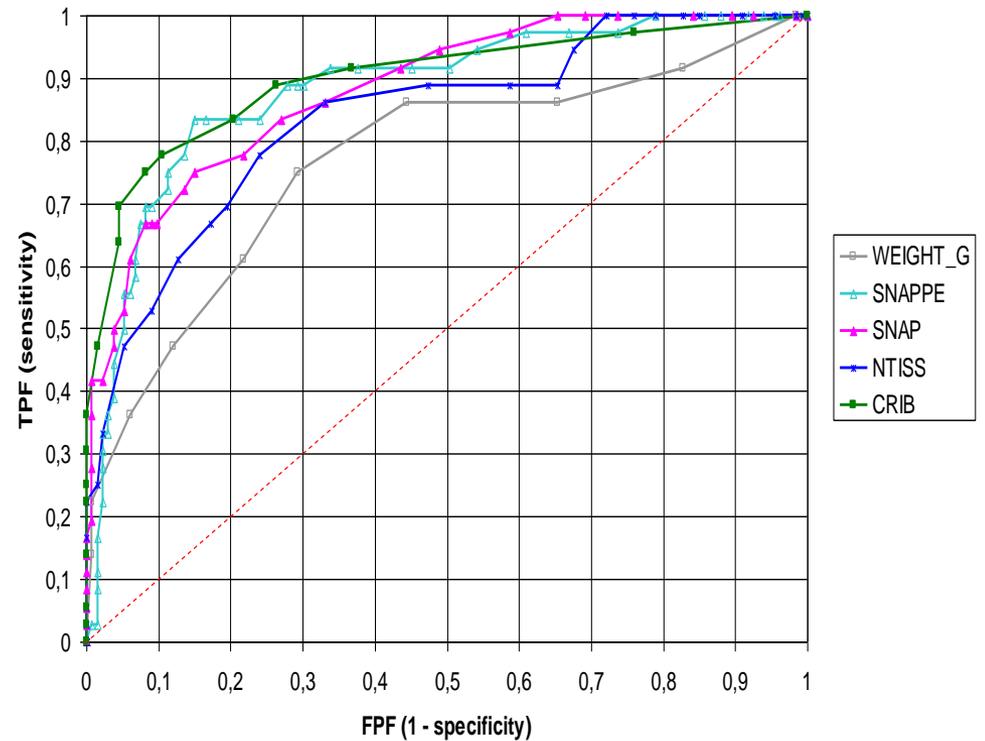


$$\begin{aligned} \text{logit} = & -25,369 - 2,587 * \text{SEXO} + 4,550 * \text{DOLICO} + \\ & +5,008 * \text{MESO} / \text{DOLICO} + 2,310 * \text{MESO} / \text{BRAQUI} + \\ & +0,119 * \text{PROP1} + 0,610 * \text{CONVEX} - \\ & -0,413 * \text{OVERBITE} + 2,109 * \text{SULCO} + \\ & +3,375 * \text{LINHA}(1) + 0,979 * \text{IDADE} + 0,546 * \text{RIL} \end{aligned}$$

Statistical Modelling

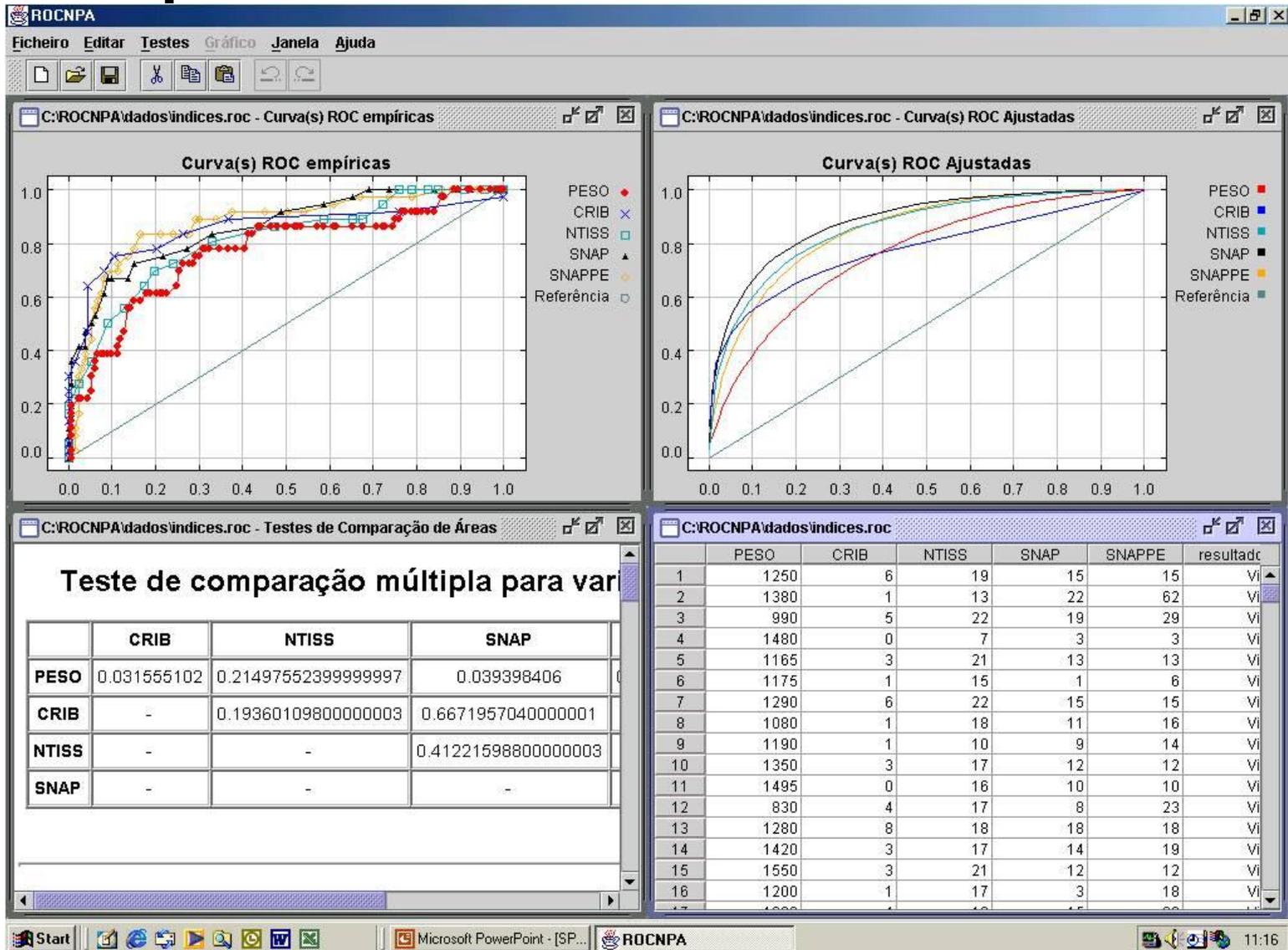


Comparison of ROC curves



Index	Area (Az)	SE(Az)
CRIB	0.90*	0.03
WEIGHT_G	0.77	0.05
SNAP	0.88	0.03
SNAPPE	0.88	0.03
NTISS	0.84	0.04

Comparison of ROC curves



- Nonparametric alternative for the comparison of ROC curves that cross each other based on multiobjective criteria



- Development of new algorithms and software applications