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- (71) Applicant (for all designated States except US): **QUASAR INTERNATIONAL, INC.** [US/US]; 5550 Midway Park Pl. NE, Albuquerque, NM 87109 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **HARRIS, Cole, Coryell** [US/US]; 813 Palomas Dr. NE, Albuquerque, NM 87108 (US).
- (74) Agent: **GARRETT, Mark, T.**; Fulbright & Jaworski L.L.P., Suite 2400, 600 Congress Avenue, Austin, TX 78701 (US).
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(54) Title: METHODS AND DEVICES RELATING TO ESTIMATING CLASSIFIER PERFORMANCE

(57) **Abstract:** Methods and devices, including methods and devices for estimating classifier performance such as generalization performance, are disclosed. One method includes providing multiple samples. Each sample is characterized by one or more features. This method also includes associating a feature variability with at least one of the one or more features on a feature-by-feature basis; and computing a first probability of misclassification by a first classifier using the feature variability. Devices, including integrated circuits (ICs) and field programmable gate arrays (FPGAs), that are configured for use in carrying out the present methods are also disclosed.



WO 03/083760 A2