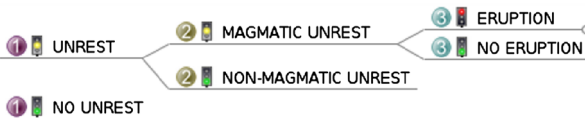


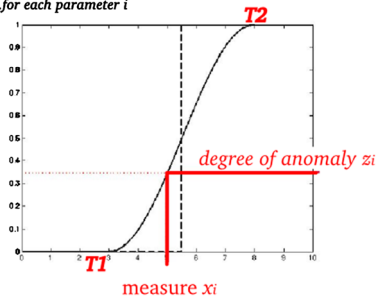
EVENT TREE SCHEME

Event Tree for
Eruption Forecasting



ANOMALIES ANALYSIS (DURING UNREST)

...for each parameter i



Node 1:

$$P_{unrest} = \max(z_i) + \text{no epistemic uncertainty}$$

Nodes 2 & 3:

$$Z = \sum_i w_i z_i$$

$$P_{ave} = 1 - a \exp(-b Z)$$

+ maximum epistemic uncertainty

adapted from [9]

BACKGROUND ANALYSIS

$$\Lambda = 1$$

$$\Theta = 0.5$$

PRIOR

$$n = 6$$

$$y = 2$$

LIKELIHOOD

$$\Theta = 0.38$$

POSTERIOR