$$(\theta_0, C_0^i, x_i)$$

$$p_{1,\text{Left}} = \frac{C_0^i - R_{0,L}^i}{R_{0,U}^i - R_{0,L}^i} \qquad p_{1,\text{Right}} = \frac{R_{0,U}^i - C_0^i}{R_{0,U}^i - R_{0,L}^i}$$

$$\theta_{1,\text{Left}} = \theta_1 \qquad (\theta_{1,\text{Right}}, C_1^j, x_j)$$

$$p_{2,\text{Left}} = \frac{C_1^j - R_{1,L}^j}{R_{1,U}^j - R_{1,L}^j} \qquad p_{2,\text{Right}} = \frac{R_{1,U}^j - C_1^j}{R_{1,U}^j - R_{1,L}^j}$$

$$(\theta_{2,\text{Left}}, C_2^k, x^k) \qquad \theta_{2,\text{Right}} = \theta_4$$

$$p_{3,\text{Left}} = \frac{C_2^k - R_{2,L}^k}{R_{2,U}^k - R_{2,L}^k} \qquad p_{3,\text{Right}} = \frac{R_{2,U}^k - C_2^k}{R_{2,U}^k - R_{2,L}^k}$$

$$\theta_{3,\text{Left}} = \theta_2 \qquad \theta_{3,\text{Right}} = \theta_3$$

Figure 1. Example of a decision tree with 3 levels for a d-dimensional input and uniform prior. Pairs $(\theta_{s,\text{Left}}, C_l^r, x_r)$ and $(\theta_{l,\text{Right}}, C_l^r, x_r)$ are the nodes and their associated cutpoints at level l on x_r. Terminal node probabilities can be worked out by multiplying along the branches.