





Figure 2 Patient Profile Estimation (PPE) step. A diagram of the PPE second step of ISOpure. (A) The Bayesian network model for the PPE step. The inputs are the tumour profiles \mathbf{x}_n and the normal profiles \mathbf{b}_r ; the average profile m is kept constant from the value obtained in the CPE step and α_n , the last entry of θ_n , also remains constant. The healthy proportions θ_n and the patient-specific cancer profiles \mathbf{c}_n are estimated in this step. The ν and k_n represent hyper-parameters in the hierarchical model. (B) Flowchart illustrating the algorithm for the PPE step. At each step, the Polak-Ribière conjugate gradient method with Wolfe-Powell stopping criteria is used to estimate variables of the same type. Each variable is estimated once during each iteration.