
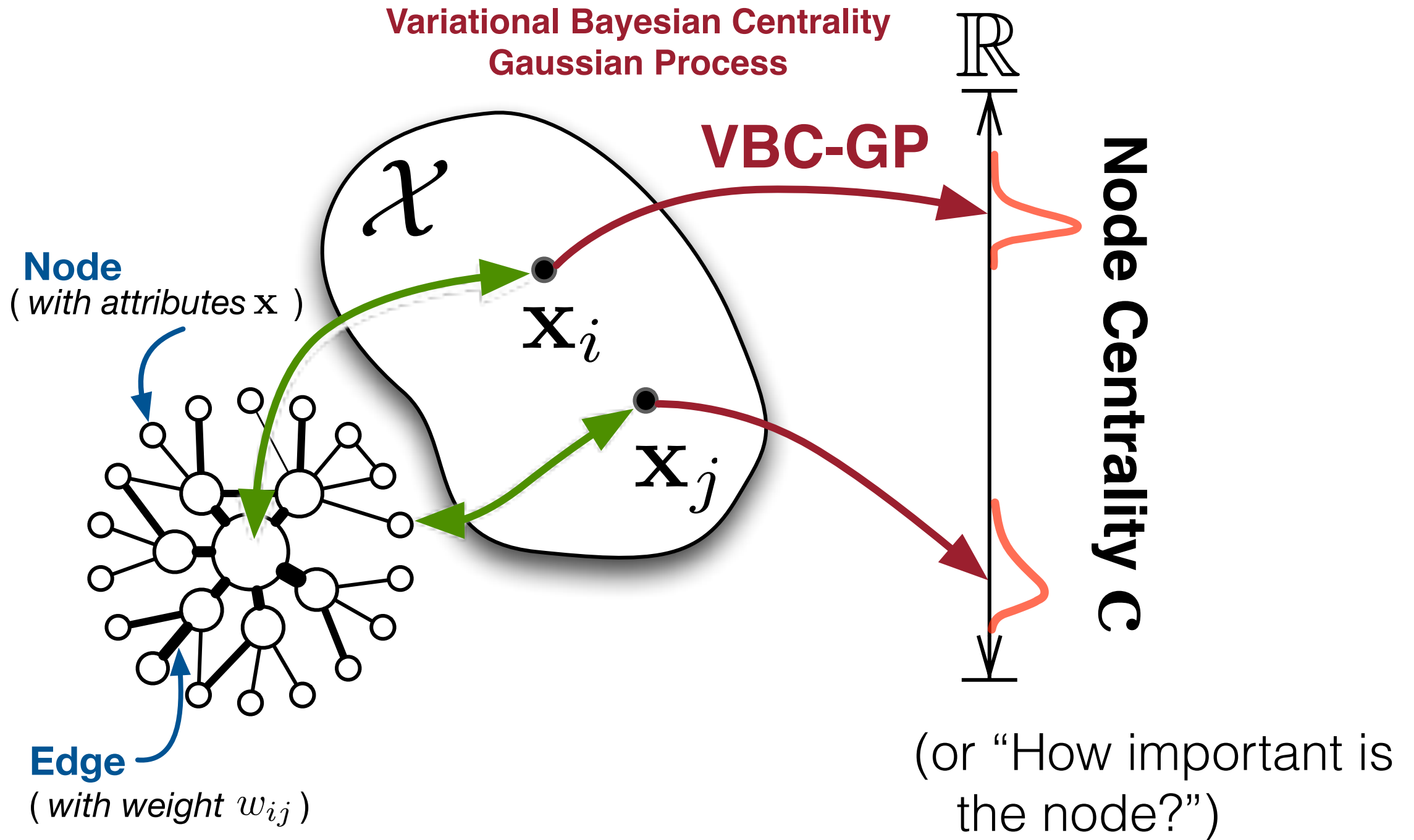


Predicting Network Centralities from Node Attributes

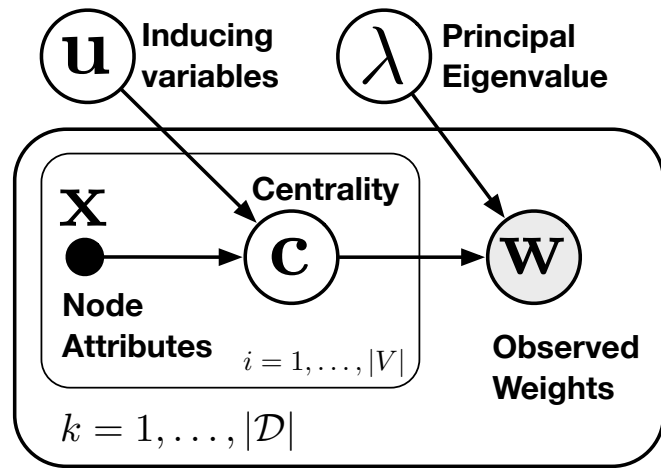
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Predicting Network Centralities from Node Attributes

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Model

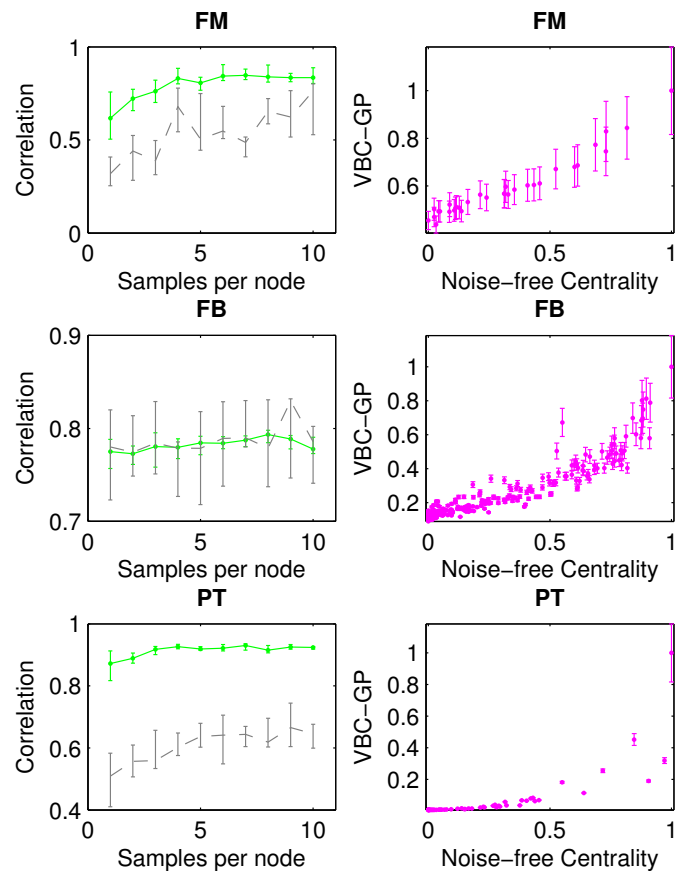


Approximate Variational Lower Bound:

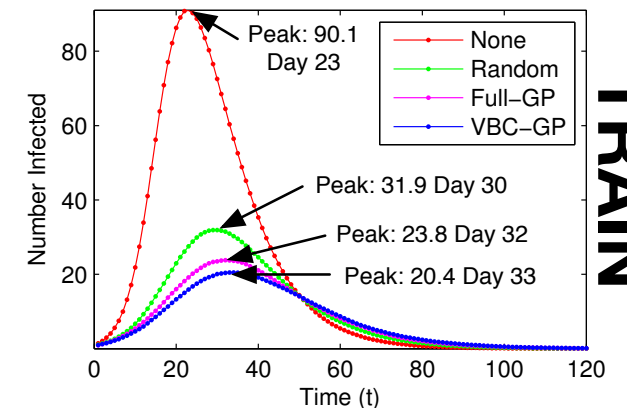
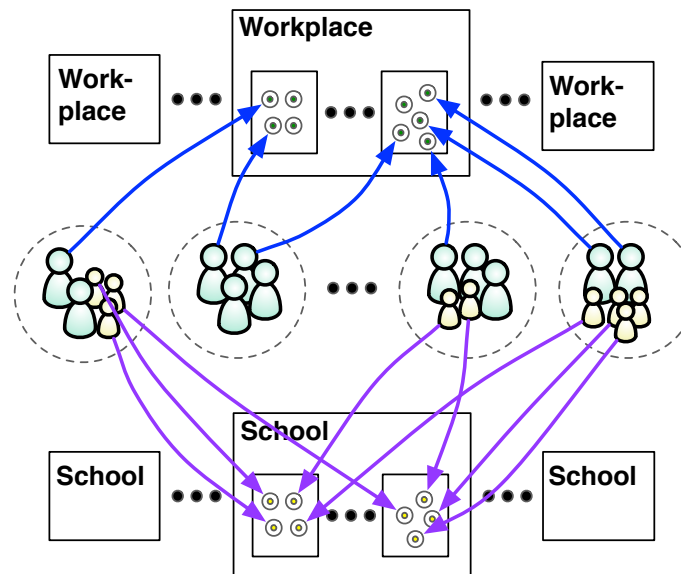
$$\mathcal{L}_2 = -\frac{1}{2} \sum_{k=1}^{|\mathcal{D}|} \log 2\pi\tilde{\sigma}_i^2 - \sum_{k=1}^{|\mathcal{D}|} \frac{1}{2\tilde{\sigma}_i^2} \left[\left(\hat{\xi}_i - \mu_\lambda - \mathbf{k}_i^\top \mathbf{K}_{mm}^{-1} \mathbf{m} \right)^2 \right] - \mathbb{D}_{\text{KL}}(q(\mathbf{u}) \| p(\mathbf{u})) - \mathbb{D}_{\text{KL}}(q(z_\lambda) \| p(z_\lambda)).$$

allows for learning with **noisy weight observations**

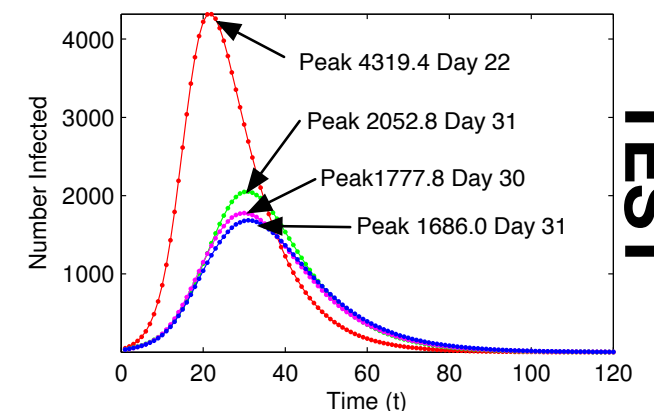
Experiments



Case Study: Vaccine Distribution



TRAIN



TEST