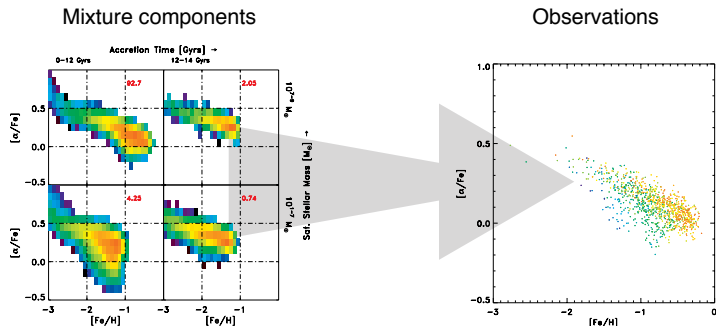


A generative finite mixture model



$$\left[\frac{Fe}{H}, \frac{\alpha}{Fe} \right]_{i=1}^N \text{ i.i.d } \sim f(x, y) = \sum_{j=1}^m \pi_j f_j(x, y)$$

Where the mixing proportions, π , give the formation history.