# BAYESIAN INVERSE PROBLEMS

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- Inverse might not exist and if it does it might not be unique

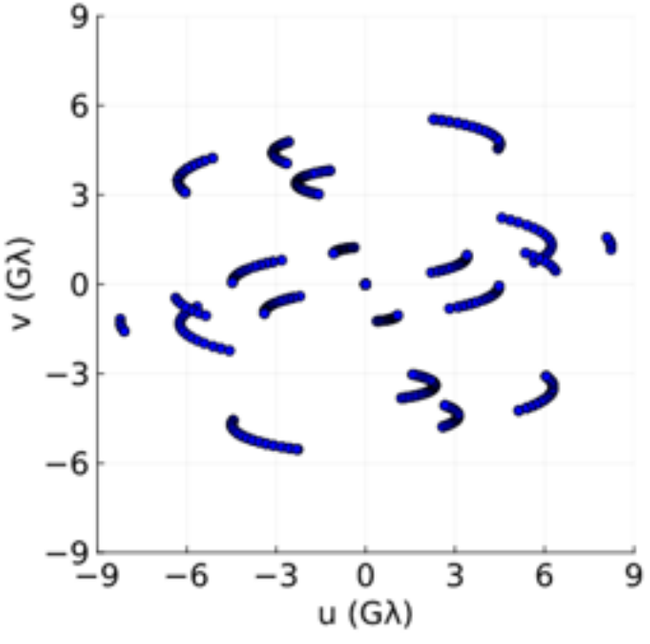
- Some images are more likely than others

- **Solution:** Introduce a prior $p(x)$ on the space of images $\mathbb{X}$ corresponding to feasible

- e.g. a log-gaussian process with unknown kernel parameters

- Infer the image from the posterior $p(x \mid y)$

- **Problem:** Data is sparse, noisy, temporally corellated, and in Fourier space



**Inference**

$\sim p(x \mid y)$

**M87, 2019**

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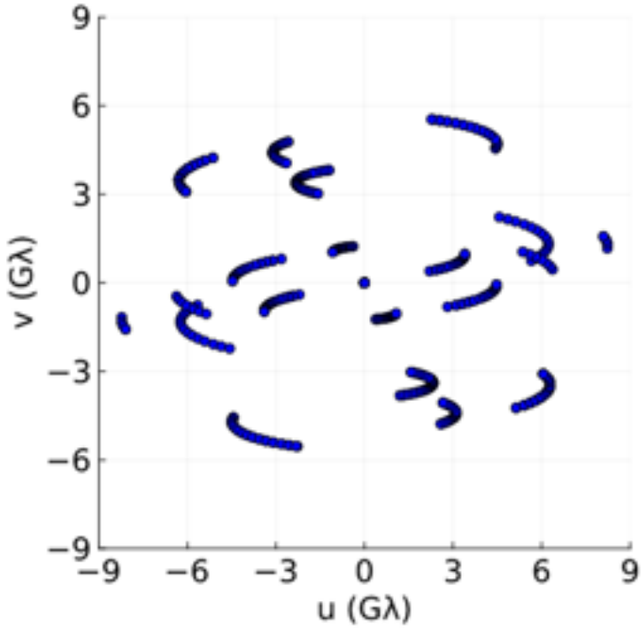


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# BAYESIAN WORKFLOW