

# Epidemic models of Flu outbreaks

...

May 24, 2014

## 1 1

Likelihood

$$L = p(D|\theta, I) = \prod_{i=1}^N p(y_k|\Theta, I) = \quad (1)$$

assuming gaussian errors

$$p(y_k|\Theta, I) = \frac{1}{\sqrt{2\pi}\sigma} \exp -\frac{1}{2\sigma^2} [y_k - F(x_k)] \quad (2)$$

where  $F(x_k)$  is the number of infected people at time  $x_k$  predicted by the model and  $y_k$  is the observed data