

# Optimising a pitch tracker

- Downsampling
- Sliding windows
- **Neighbourhood search**

After getting a pitch at 5kHz, we can examine the neighbourhood ( $\pm 8$  lags, called N) at the full resolution and refine the estimate

This requires recalculating H at full resolution which is expensive.

Only performed every 40 samples at full resolution

If the peak chosen is in the top half of the neighbourhood, we shift the neighbourhood “up” by one lag, which helps to track changes in frequency over time. And vice-versa.

Won't it just make clicking  
sounds?