

Detection Time

- Prob. of being pinged in $T' = 1 - \left(1 - \frac{1}{N}\right)^{N-1} = 1 - e^{-1}$
- $E[T] = T' \cdot \frac{e}{e-1}$
- Completeness: *Any* alive member detects failure
 - Eventually
 - By using a trick: within worst case $O(N)$ protocol periods