MAC

- Polling (+ beacon)
  \[ M = \# \text{ nodes} \]
  \[ T = \text{prop time between ads} \]
  \[ C = \text{cap} \]
  \[ T_e = M^{1/2} \]

effective size of network \[ N = \frac{T_e}{(\pi)} \]

max \[ N \]

- Random Access
  + Algorithm TX & wait for Ack
  - no Ack then ReTX
Ack timer

Assume no ack -> collision

Backoff algorithm

+ Time
  - unslotted -> CS
  - slotted -> pay for sync

+ Net status
  - CS reduces time you are
    in collision

  CD
Flavors of RA nets (slotted vs unslotted)

- Aloha
- P-persistent CSMA
- non-persistent

Case #2

\[
\begin{align*}
\theta_{\text{max}} &= 180^\circ \\
\theta_{\text{AOA}} &= 36^\circ \\
\theta_{\text{CSMA}} &= \text{variable}
\end{align*}
\]

Effective size of net = \( a = \frac{r}{c} \)
Sarah L.

\[ \text{csn} \text{ A + min packed size} \]

keep a small

\[ \text{max packed size} \]

Bernard