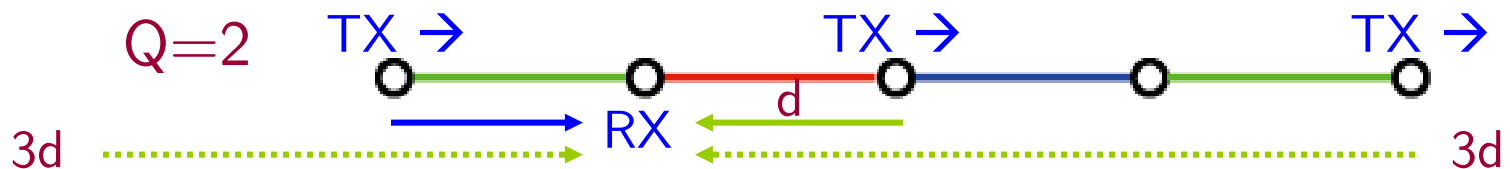
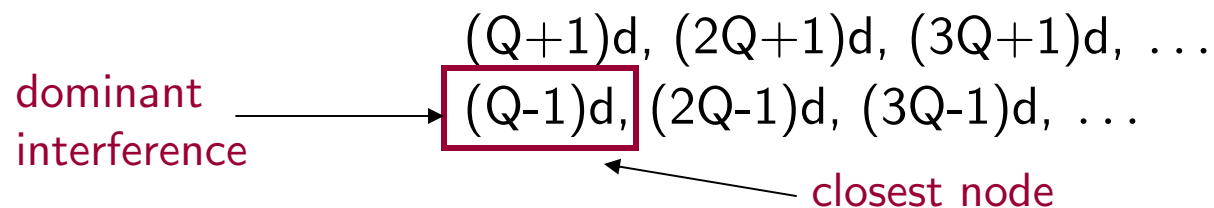


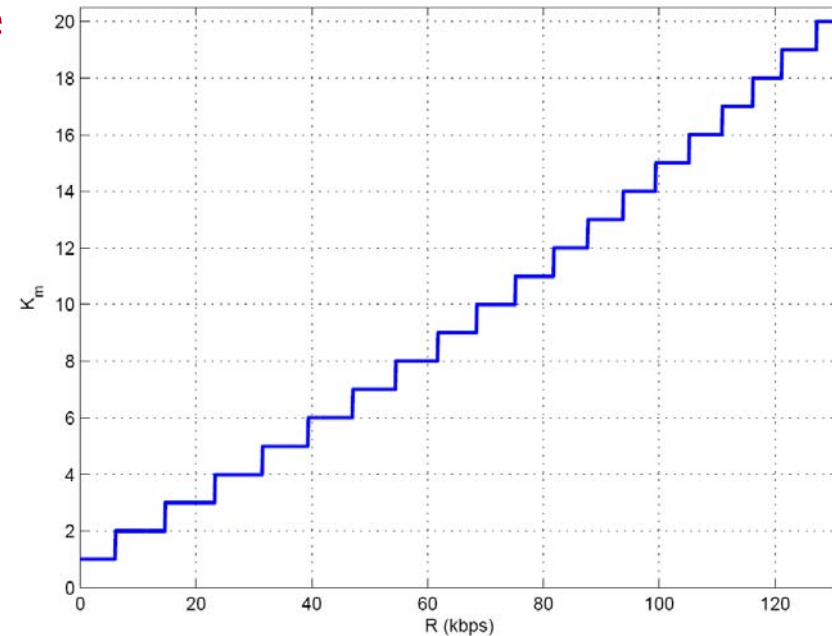
Multihop Transmission: Scheduling

- Considerations for scheduling design
 - Link utilization: \rightarrow small spatial reuse factor
 - Interference suppression: \rightarrow large spatial reuse factor
 - Collision avoidance
- Good design strikes *balance*
- Proposed scheduling protocol:
 - Spatial reuse factor Q
 - Interference nodes located at distance:



Numerical Results: #Hops vs. Reliability

- Fixed source-destination distance 10km
- Total power budget 40dB
 - (uniformly distributed across nodes)
- Required reliability 0.0001 packet error rate
- Packet duration 0.1sec
- Minimum # hops vs. target rate



- Multihopping *crucial* for maintaining high rates + high reliability
- Required # hops scales almost linearly with target rate

