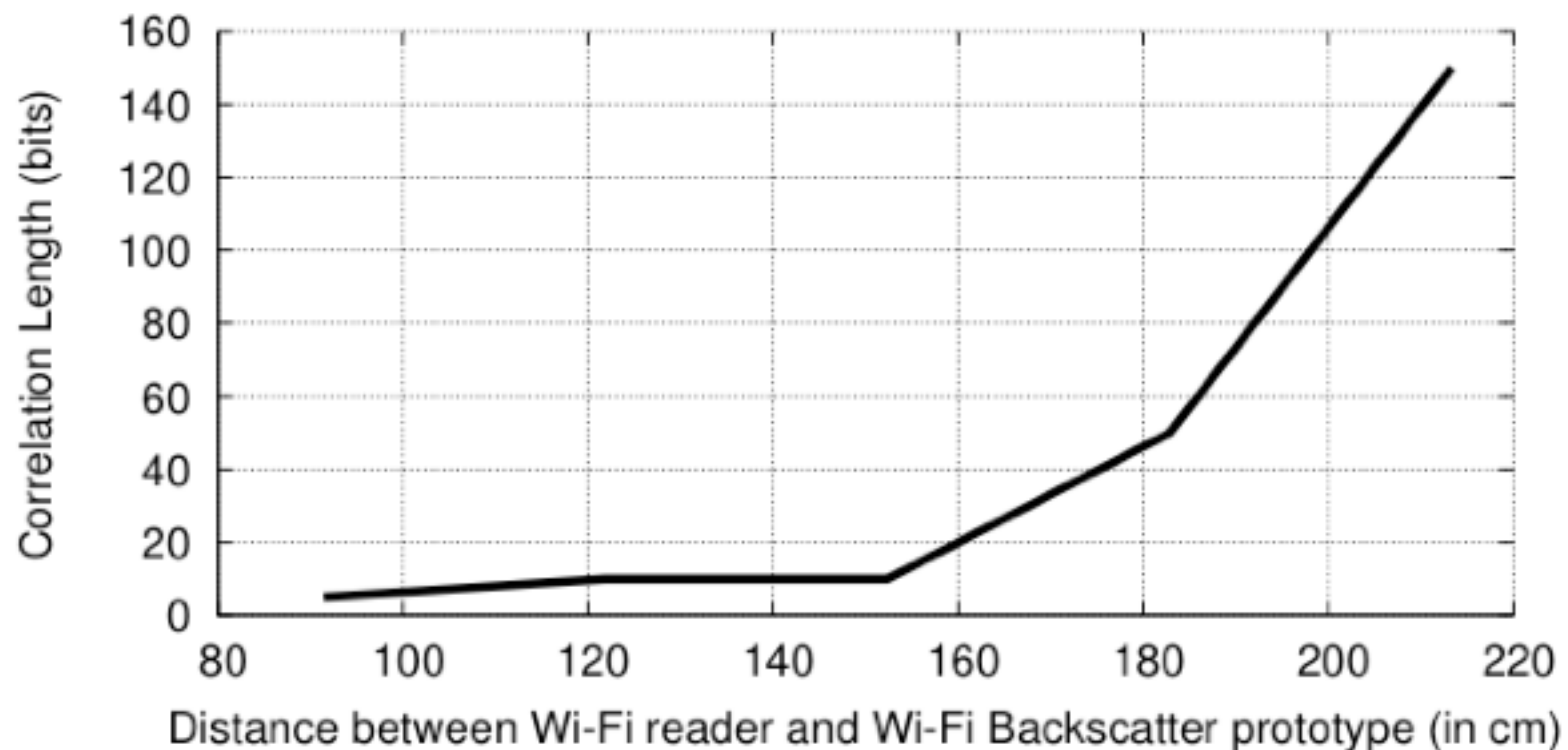


# Evaluation

## How to improve the range for uplink

- Normally 65cm is the extreme, how to improve it?
  - Do not use a single switch of reflection to represent 0/1
  - Instead, use 2 longer, orthogonal-coded sequence  $L$  to represent 0/1



# Critique

## Wi-Fi Backscatter

- The downlink is pretty vulnerable - it silences all the other traffic.
  - the false-positive evaluation proves this to some extent. need find a more unique way to inform the Tag
- Using coding to improve the uplink range is pretty limited - much more bits are required for a slightly larger range
  - actually it is intrinsically inapplicable for long range communication - CSI amplitude becomes more “mixed” with the ambient in distant position