



Indoor positioning using off-the-shelf FM radio devices

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Introduction

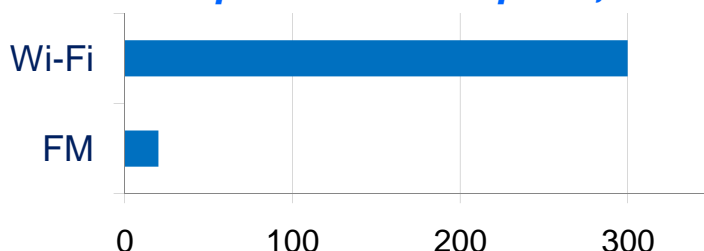
- GPS is not available indoors.
- Wi-Fi has limited coverage and can be prohibited in sensitive environments.
- Specialized systems are expensive.

Why FM?

- Cheap beacons (10-20 euro)
- Available off-the-shelf
- No license required
- Already embedded in many devices

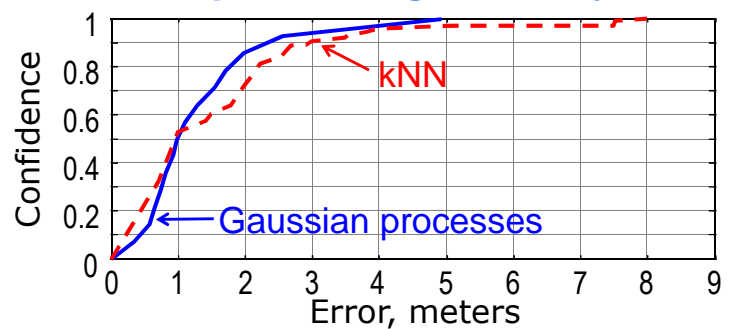


Receiver power consumption, mW

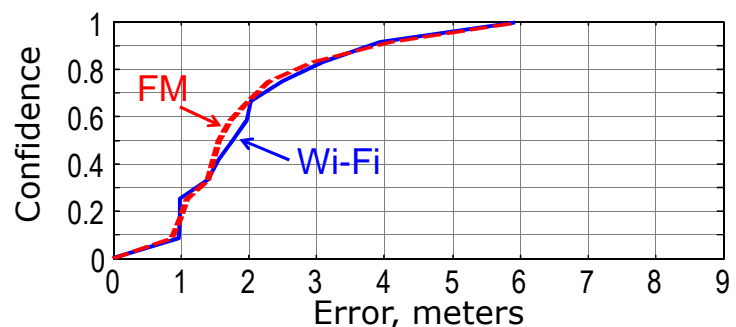


Results

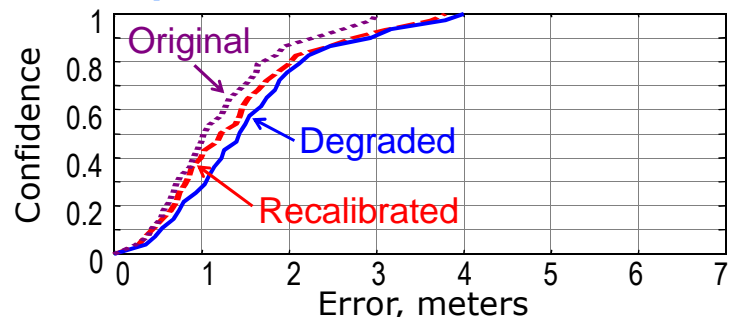
FM positioning accuracy



Comparison of FM and Wi-Fi



Spontaneous recalibration



Summary

- FM localization is as accurate as Wi-Fi
- Cheap and efficient positioning system
- Automatically maintains the accuracy

