SEEMO
SECURE MOBILE NETWORKING

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Research interests:

- Beam Training
- IEEE 802.11ad from the practical perspective
- Turn off-the-shelf devices into research platform

Poster and Demo:
A Practical IEEE 802.11ad Research Platform: The Hidden Potential of Off-the-Shelf Devices

Millimeter Wave Bands

Different bands are available:

- 28 GHz band: 26.5 to 29.5 GHz
- 37 GHz band: 37 to 40 GHz
- 39 GHz band: 38.6 to 40 GHz
- 60 GHz band: 57 to 71 GHz
- 73 GHz band: 71 to 76 GHz
- 83 GHz band: 81 to 86 GHz

Propagation characteristics (such as attenuation, absorption, reflections, diffractions, scattering) might differ

What have these bands in common?

Beam Management

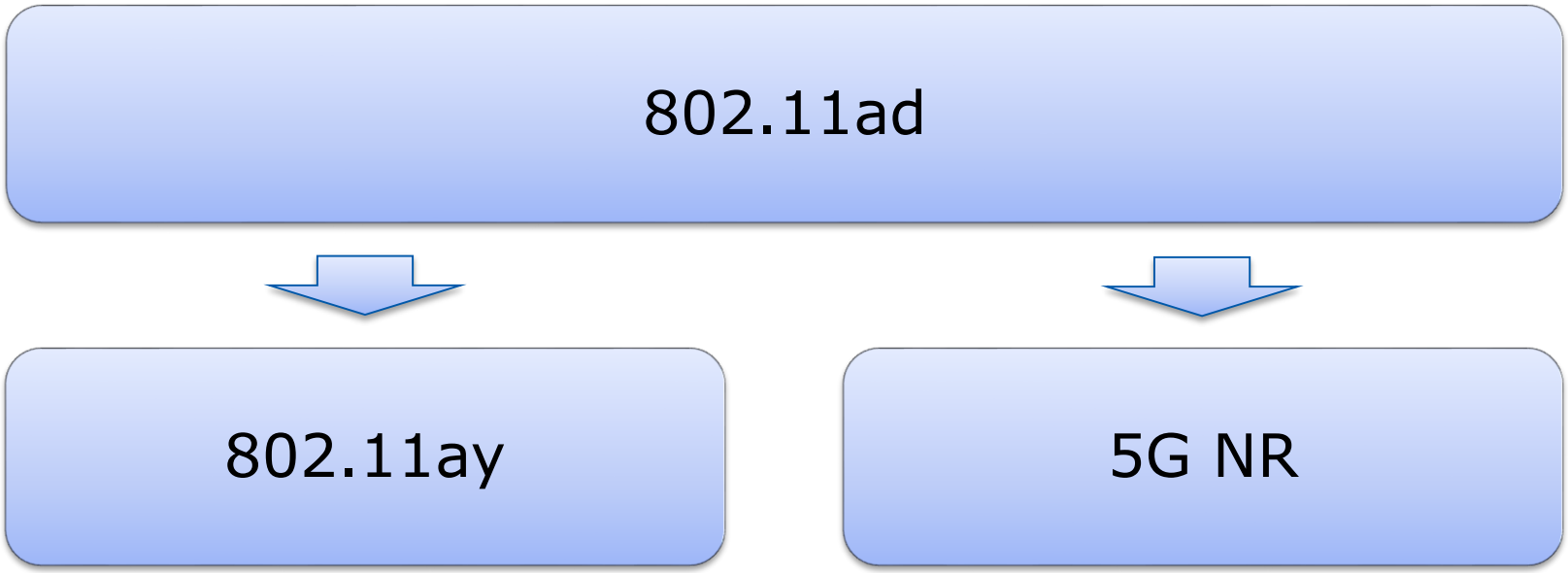
All mm-wave bands require beam-training:

- Sector Sweep
- Initial Access
- Hybrid Beamforming
- Beaconing
- Multi-Stage Training

Parameters might differ, but in general beam management remains similar for all mm-wave bands.

Can we find a common approach?

IEEE 802.11ad exists since 2012. What can we learn from the last 6 years to make IEEE 802.ay and 5G NR even better?



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