Cognitive Sub-Nyquist Radar Prototypes

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**SUMMeR**

**SUMMeR Concepts**
Spatio-Temporal Xampling and Doppler Processing

**Hardware Prototype and Measurement Results**

**Cognitive Radar (CRr)**
- Spectral Coexistence via Xampling (SpeCX)
- Cognitive Synthetic Aperture Radar (CoSAR)

**Algorithm, Hardware Prototype and Results**
- 5 MHz cognitive chirp
- 4 subbands of 625 kHz bandwidth
- Xampling at 1/24th of the Nyquist rate
- RCMS at 1/16th of the Nyquist rate

**Spectral Coexistence**
- Cognitive Radar (CRr)
- Cognitive SAR Concepts
- Cognitive Synthetic Aperture Radar (CoSAR)

**Hardware Prototype and Measurement Results**
- Spectral Coexistence via Xampling (SpeCX)

**Spectrum Coexistence via Xampling (SpeCX)**
- Cognitive Synthetic Aperture Radar (CoSAR)
- Algorithm, Hardware Prototype and Results

**Cognitive Synthetic Aperture Radar (CoSAR)**

**CoSAR Concepts**
- Signal Model and Sampling Scheme
- Algorithm, Hardware Prototype and Results