

Session Program

21-25 Sept 2026



Raleigh, North Carolina

GNU Radio Conference 2026

Main Track

Talley Student Union
2610 Cates Ave Raleigh, NC 27607

Tuesday 22 September

11:00

Main Track

Session | **Location:** Talley Student Union, Mountain Ballroom

11:00-11:15 **Automatic Python Bindings for GNU Radio 4 Blocks via nanobind**

Speakers

Anthony Gravier, Mr Carlos DelValle Rivera

11:15-11:45 **GNU Radio Studio - Use Cases and Future Plans**

Speakers

Håkon Vågsether, Josh Morman

11:45-12:00

Contactless cardiac-related micro-motion sensing and feature extraction using SDR-based continuous-wave radar

Speaker

Dr Bayarpurev Mongol

12:00

13:00

Main Track

Session | **Location:** Talley Student Union, Mountain Ballroom

13:00-13:30

Real-Time Digital Pre-Distortion on the Analog Devices Jupiter SDR via GNU Radio

Speaker

Neil Rogers

13:30-13:45

gr-pocketsdr: Bringing PocketSDR Front-Ends to GNU Radio and GNSS-SDR Ecosystem

Speaker

Minhaj Uddin Ahmad

13:45-14:15

Distributed Fourier-Domain Imaging With Fully Digital Wireless Coordination Using Software Defined Radios

Speaker

Sherwin Shiran

14:15-14:30

Method for Automatic Calibration of I/Q Amplitude Balance and Quadrature Skew Using GNU Radio

Speaker

Nazia Mozaffar

14:30-15:00 **USRP 2026: New Connections**

Speaker

Martin Braun

15:00

15:30

Main Track**Session** | **Location:** Talley Student Union, Mountain Ballroom

15:30–16:00

New Methods for FM Threshold Extension in GNU Radio**Speaker**

Christopher Hansen

16:00–16:15

Comparative Assessment of Calibrated SDRs for Reliable Spectrum Sensing**Speaker**

Parker Trzebunia

16:15–16:45

Universal High-Bandwidth SDR Transceiver for RFSoc4x2 and GNU Radio**Speaker**

Mr Marius Siauciulis

16:45–17:00

Closing the GNU Radio to FPGA Loop: Towards a DVB-S2 Transmitter**Speaker**

Seth Pellegrino

17:00–17:15

Open-Source RF Scene Generator for Procedurally-Generated Over-the-Air Datasets Using GNU Radio**Speaker**

Samuel Brosh

17:30

Wednesday 23 September

09:45

Main Track

Session | **Location:** Talley Student Union, Mountain Ballroom

09:45–10:00

Use of GNU Radio Simulations and Hardware Exercises to Teach and Apply SDR and Spectrum Sharing Concepts

Speaker

Carl Dietrich

10:00–10:30

Sensors Deployed in Hostile Environments connected using Acoustic Communications and GNU Radio

Speaker

Mr Michael Alldritt

10:30–10:45

Real-Time LiDAR Data Transmission to the Edge over mmWave

Speaker

Kevin Hermstein

10:45

11:00

Main Track

Session | **Location:** Talley Student Union, Mountain Ballroom

11:00–11:15

On-Device GNU Radio for an SoC-Based Underwater Acoustic Modem

Speaker

Mr Gabriel Garcia

11:15–11:45

Your Flowgraph Is the Chip: GNU Radio Compiled Straight to Silicon

Speaker

Charles McClish

11:45–12:00

ADI Sponsor Talk

12:00

13:00

Main Track

Session | **Location:** Talley Student Union, Mountain Ballroom

13:00–13:15

Real-Time Multi-Signal Modulation Classification at the Cognitive Edge Using Multi-Modal Deep Fusion in GNU Radio

Speaker

Mr Sultan Mohammad Manjur

13:15

13:20

Main Track**Session** | **Location:** Talley Student Union, Mountain Ballroom

13:20–13:50

FISSURE: Tactical RF Operations and Situational Awareness with GNU Radio**Speakers**

Christopher Poore, Dan Love

13:50

13:55

Main Track**Session** | **Location:** Talley Student Union, Mountain Ballroom

13:55–14:10

gr-autopilot: An Agentic Framework for Closed-Loop Flowgraph Synthesis with Hardware-in-the-Loop Feedback**Speaker**

Stepan Mazokha

14:10

14:15

Main Track**Session** | **Location:** Talley Student Union, Mountain Ballroom

14:15–14:45

Deploying GNU Radio in Agentic AI Systems**Speaker**

Dan Bryant

14:45–15:00

Detecting Falsified UAV Telemetry: An SDR Approach to Remote ID Spoofing Detection**Speaker**

Joel Isaacson

15:00

15:30

Main Track**Session** | **Location:** Talley Student Union, Mountain Ballroom

15:30–15:45

softcast-rs, an open source implementation of the joint source channel video coding mechanism**Speaker**

Jordan Schneider

15:45–16:15

RF in Slow Motion: Using Acoustics for SDR Education**Speaker**

Dan Boschen

16:15–16:30

gr-rt_channel_emulator: Ray-Tracing-Driven Channel Emulation in GNU Radio for Reproducible PHY-Layer Datasets**Speaker**

Jose Sanchez Viloria

16:30–17:00

Beam Mapping Radio Telescopes with GNSS-SDR for 21 cm Cosmology

17:00

Speaker
Shronim Tiwari

Thursday 24 September

09:45

Main Track

Session | **Location:** Talley Student Union, Mountain Ballroom

09:45–10:15

SDR Driver for Precise Timing Applications

Speaker

Fabrizio Pollastri

10:15–10:45

How to share clocks for phase coherency that suits your needs

Speaker

Jan Schirok

10:45

11:00

Main Track

Session | **Location:** Talley Student Union, Mountain Ballroom

11:00–11:15

Real-Time Dynamic Attitude Compensation for Adaptive Beamforming in Space-Based Payloads: A GMAT-GNU Radio Simulation Framework

Speakers

Mr Felipe Ferreira, Rafael Cruz

11:15–11:45

Real-Time Scheduling Support in GNU Radio 4

Speaker

Tiancheng He

11:45–12:00

A Comprehensive Analysis of Large-Scale SDR Synchronisation with the OctoClock-G

Speaker

Mr Dennis Joosens

12:00

12:45

Main Track

Session | **Location:** Talley Student Union, Mountain Ballroom

12:45–13:00

Payload-Aided 5G NTN Integrated Sensing and Communication

Speaker

Soham Desai

13:00–13:15

Toward Massive-MIMO mmWave ISAC: An Open Framework for Scalable RF Sensing and Communications

Speaker

Shammi Doly

13:15–13:45

Scalable Phased Arrays with QuadRF

Speaker

Martin McCormick

15:00	13:45-14:00 A GNU Radio SDR Framework for 5G-Based Indoor Motion Detection Using SSB and Zadoff-Chu Signals Speaker Mr Krishna Kanth Rokkam
15:30	14:00-14:30 Holoscan and USRP: A GPU and SDR case study Speaker Martin Braun
17:00	14:30-15:00 Toward Hardware-Accelerated High-Accuracy Digital Wireless Coordination of SDR-Based Coherent Distributed Antenna Arrays Speaker Mr Matthew Dula
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