

Session Program

Dec 12 - 13, 2020

Open Source CubeSat Workshop 2020

Room #1

Sat, December 12

2:15 PM

Room #1: Talks

Session | **Conveners:** Red Boumghar, Manthos Papamatthaiou

2:15 - 2:35 PM **SatNOGS - State of the Union**

2:35 - 2:55 PM **DOCKS - An open-source software suite for space mission profiles**

2:55 - 3:15 PM

OpenSatCom: Open Source development methodology models for satellite communications

3:15 - 3:35 PM

Progress and Developments in Open Source Electric Propulsion at Applied Ion Systems

3:35 - 3:55 PM

AcubeSAT, a 3U CubeSat to probe gene expression in LEO: technical & programmatic updates

4:00 PM

4:10 PM

Room #1: Lightning Talks

Session | **Conveners:** Red Boumghar, Artur Scholz

4:10 - 4:14 PM **Power Conditioning and Distribution Unit for 1U CubeSat**

4:14 - 4:18 PM **'New comer' ground station challenge : demodulate data**

4:18 - 4:22 PM

Design, Fabrication, and Measurement of On-Board UHF Turnstile Antennas with Optimized Radiation Patterns

4:22 - 4:26 PM **Code in Space**

4:26 - 4:30 PM **Manchester CubeSat Research Group**

4:30 - 4:34 PM **Sunrld a Student Venture to Democratise Access to Space**

4:44 PM

4:45 PM

Room #1: Discussion/Tutorial

Session | **Convener:** Eleftherios Kosmas

4:45 - 5:45 PM **How to contribute to open source**

6:00 PM

Sun, December 13

2:10 PM

Room #1: Talks

Session | **Conveners:** Pierros Papadeas, Artur Scholz

2:10 - 2:30 PM **Goodbye TLEs, hello OMMs!**

2:30 - 2:50 PM **What the hell was that?**

2:50 - 3:10 PM

Orbit.M - An Open-Source Software for LEO Orbit Maintenance in Python

3:10 - 3:30 PM **A Dual-Redundant CubeSat Flight Computer Based on Raspberry Pi**

3:30 - 3:50 PM **Library Space Technology Network**

4:00 PM

4:10 PM

Room #1: Lightning Talks

Session | **Conveners:** Red Boumghar, Manthos Papamatthaiou

4:10 - 4:14 PM **Phoenix - An open source orbital cloud infrastructure**

4:14 - 4:18 PM **Portable QO-100 Software Defined Ground Station**

4:18 - 4:22 PM **The OpenSource in Space Podcast**

4:22 - 4:26 PM **Mechanical design for space applications using open source tools**

4:26 - 4:30 PM **Pico Fluid Dynamic Actuators in CubeSats**

4:30 - 4:34 PM **SDNx Debrisat: Detecting Milli Space Debris In the Low Earth Orbit**

4:34 PM

4:45 PM

Room #1: Discussion/Tutorial

Session | **Convener:** Red Boumghar

4:45 - 6:00 PM **Demo on writing/loading/installing/executing your code on OPS-SAT**

6:00 PM