

# ARTS Workshop 2024: Program

## Day 1 Tuesday morning

**10:00 Bus to Kristineberg leaves**

The bus departures from Gustaf Adolfs torg in central Göteborg:  
<https://maps.app.goo.gl/XcNnBbbzcYsiiWEj6>

**11:45 Approximate arrival time at Kristineberg**

**12:00 Lunch**

## Day 1 Tuesday afternoon

**13:30 ARTS introduction**

- Patrick Eriksson: Welcome and schedule
- Stefan Buehler: ARTS 2.6
- Manfred Brath: Extension to solar
- Richard Larsson: ARTS 3

**14:45 Coffee break**

**15:15 Poster session**

**17:00 Dinner**

## **Day 2 Wednesday morning**

### **09:00 Gas absorption (chair: Stefan)**

- Richard Larsson: The gas absorption of ARTS 2.6 (20+5 min)
- Stuart Fox: Evaluating of atmospheric absorption models using ISMAR (20+5 min)
- Peter McEvoy: A narrowband absorption approach for ARTS (20+5 min)

### **10:15 Coffee break**

### **10:45 ARTS hands-on absorption setup and using the GUI**

- Richard: Intro talk
- Hands-on session

### **12:00 Lunch**

## **Day 2 Wednesday afternoon**

### **13:30 Observations of the middle atmosphere (chair: Richard)**

- Richard Johansson – Ozone and molecular oxygen measurements in Kiruna (20+5 min)
- Witali Krochin - Temperature retrievals with ground based, fully polarimetric measurements in the 60GHz Oxygen Band (20+5 min)
- Michael J Schwartz - Comparison of ARTS and JPL MLS models for 118-GHz Zeeman-split O<sub>2</sub> line (20+5 min)

### **14:45 Coffee break**

### **15:15 Guest presentation (chair: Patrick)**

- Johan Riesbeck (Omnisys) – The Arctic Weather Satellite (20+5 min)

### **15:40 Discussion (chair: Patrick)**

- Retrievals with OEM
- What do you want from ARTS?

### **17:00 Dinner**

## **Day 3 Thursday morning**

### **09:00 Climate and fluxes (chair: Stefan)**

- Florian Römer: State dependence of spectral longwave feedback (20+5 min)
- Mayank Chauhan: Downward longwave radiation in the central Himalayas (20+5 min)
- Robert Pincus: The spectral roots of hydrologic sensitivity (20+5 min)

### **10:15 Coffee break**

### **10:45 ARTS hands-on fluxes and heating rates (chair: Freddy)**

- Manfred Brath: Intro talk: Predefined setup to compute fluxes and heating rates with ARTS
- Hands-on session

### **12:00 Lunch**

## **Day 3 Thursday afternoon**

### **13:30 Surface and Scattering (chair: Freddy)**

- Kazuhito Sagi: TSUKIMI lunar terahertz surveyor for subkilometer-scale mapping (15+4 min)
- Suyun Wang: TBA (15+4 min) Topic: Surface interaction
- Patrick Eriksson: An overview of hydrometeor scattering and surface modelling in ARTS (15+4 min)
- Manfred Brath: Shortwave all-sky simulation (15+4 min)

### **14:45 Coffee break**

### **15:15 ARTS general support and feedback (chair: Stefan)**

### **17:00 Support session wrap-up**

### **18:00 Barbecue**

## **Day 4 Friday morning**

### **09:00 Observations of clouds (chair: Patrick)**

- Ian Adams: Current, future, and potential use cases of ARTS at NASA Goddard Space Flight Center (20+5 min)
- Eleanor May: The Ice Cloud Imager: New retrieval possibilities (20+5 min)
- Stuart Fox: Combined active and passive remote sensing of ice cloud during the CCREST-M campaign (20+5 min)

### **10:15 Coffee break**

### **10:45 Outlook (chair: Stefan and Patrick)**

### **12:00 Lunch**

### **13:15 Bus leaves for Göteborg (arrives approx. 15:15)**

You will be dropped off in central Göteborg, nearby one of the stops of the air port bus.

### **Registered posters (feel free to bring additional, relevant posters):**

- David Ashmore: TBA
- Alistair Bell: Retrievals of the Middle Atmosphere H<sub>2</sub>O Anomaly following the Hunga Tonga Volcanic Eruption
- Leo Pio D'Adderio: TBA
- Yuli Liu: TBA
- Catalina Medina: Arctic Weather Satellite Spillover Simulations with ARTS
- Kaah Menang: Shortwave continua and ECS