


# Travel Authorization Request Form

Must be filled out before travel begins

Name: Bharath Keshavamurthy ASU ID#: 1223224041 Concur Trip ID: GFKG  
 Travel Start/End Dates: 01/03/2022 to 01/08/2022 Destination: Boulder, CO  
 Personal Travel during trip (Y/N) N Start/End Dates of Personal Travel: \_\_\_\_\_  
 Conference/Event Host: Christina Patarino, USNC-URSI NRSM 2022 at UC-Boulder  
 Workday Acct: Startup PI Name: Nicolo Michelusi  
 PI Authorization Signature (REQUIRED):  \_\_\_\_\_  
**FACULTY ONLY – How/Who is covering your classes?** N.A.

- AIRFARE: \$ 300.00 (Travel request must be fully approved by the ASU Travel Office **BEFORE** purchasing airfare. All airfare must be purchased through Concur system)
- PERSONAL VEHICLE 0.0 (Enter mileage to/from travel destination)
- LODGING\* \$ 700.00 (Conference lodging may be purchased outside of Concur system and reservation must be provided to [plans@concur.com](mailto:plans@concur.com) and [myasutrip@asu.edu](mailto:myasutrip@asu.edu) prior to travel. **NON-CONFERENCE** lodging **MUST** be purchased through Concur system)
- HOTEL NAME: Hilton Garden Inn Boulder

\*Non-conference lodging must be within the per diem rate. If not, provide justification/documentation showing that this is the recommended lodging: \_\_\_\_\_

- REGISTRATION: \$ 0.00 (Provide conference website and proof of payment if already purchased)
- MEALS: \$ \_\_\_\_\_ (Concur daily allowance used unless otherwise indicated)
- MISC ITEM: \$ 160.00 Specify: Taxi (Lyft) MISC ITEM: \$ \_\_\_\_\_ Specify: \_\_\_\_\_
- RENTAL CAR: \*\* \$ \_\_\_\_\_ Completion of Authorized Driver Program is required **BEFORE** travel.) <https://cfo.asu.edu/what-are-steps-authorized-driver-program>. \*\*Provide rental car justification: \_\_\_\_\_
- SPONSOR INVITATION: If applicable to this trip, please attach invitation to trip request from sponsor or location site that you have been invited or allowed to participate in an activity

## 1. PROVIDE JUSTIFICATION FOR THIS TRIP AND WHY IT CANNOT BE ACHIEVED ADEQUATELY REMOTELY (E.G. ZOOM)?

I will be presenting our research paper titled, "A Robotic Antenna Alignment and Tracking System for Millimeter Wave Propagation Modeling" during this conference (USNC-URSI National Radio Science Meeting 2022) held at the University of Colorado - Boulder. The conference organizers have provided me with a Travel Fellowship which necessitates in-person presentation of our paper. The travel fellowship waives the conference registration fee (\$225) and provides a travel reimbursement of \$375.

## 2. GRANT FUNDED TRAVEL: HOW DOES THE TRAVEL BENEFIT AND RELATE TO THE RESEARCH CONDUCTED ON THE GRANT?

This paper presentation allows us to disseminate our research on millimeter-wave propagation modeling -- specifically, the design, operation, and benefits of a fully autonomous antenna alignment & tracking platform employed in our V2X measurement campaign at the NSF POWDER testbed in Salt Lake City, which was one of the objectives of our NSF EARS grant.

## 3. PROGRAM/GIFT/DISCRETIONARY FUNDED TRAVEL: HOW DOES THIS TRAVEL BENEFIT ASU?

This paper presentation and its subsequent archival in IEEE Xplore will help promote the activities of our research group here at ASU, and emphasize ASU's role as a leader in the field of intelligent wireless networks. In addition to presenting our paper at this conference, I would be attending short courses & tutorials in the radio sciences, plenary talks, and mentoring sessions: these will help augment our research in millimeter-wave propagation modeling, beam-alignment, and MIMO communications.