

### Collaborative Research based on MU Radar and Equatorial Atmosphere Radar in June-November 2021

Project No.	Reception No.	PI	Affiliation	Research Title
L01	C01	L. Kantha	Univ. Colorado	Shigaraki UAV Radar Experiment (ShUREX 2021)
F02	G17	Y. Otsuka	Nagoya Univ.	150-km echo observations using EAR and MU radar
F03	G04	K. Shiokawa	Nagoya Univ.	Cooperative observation of the upper atmosphere using the Optical Mesosphere Thermosphere Imagers, EAR, and the MU radar
F04	G36	Y. Maekawa	Osaka E.-C. Univ.	A study on the effects of precipitating clouds on the propagation paths of satellite communications
A05	G10	K. Nishimura	Kyoto Univ.	Renewing the Observation and Analysis Methods based on the Spectral Inverse Scattering Theory
A06	G19	T. Matsuda	Kyoto Univ.	Development of MIMO radar techniques using the MU radar
A07	G03	H. Hashiguchi	Kyoto Univ.	Observational study of three-dimensional structure near Typhoon center
A08	G11	T. Yoshihara	ENRI	Quality evaluation and new utilization of meteorological observational information derived from broadcasted messages by aircraft onboard transponders
A09	G21	Y. Shibagaki	Osaka E.-C. Univ.	Studies on Development and Organization of Frontal Disturbances with MU and Meteorological Radars
A10	G18	M. Yabuki	Kyoto Univ.	Validation of air quality measurement techniques through combinations of remote-sensing and in-situ instruments
A11	G23	E. Nakakita	Kyoto Univ.	Hydrologic Cycle Analysis on Forest Watershed Using Forest Tower Observation, and Feasibility of Observation by Remote Sensing Technique for Validation
A12	G07	K. Sato	Univ. Tokyo	Field training of radiosonde observation for undergraduate students
A13	A09	M. Yabuki	Kyoto Univ.	Earth's atmosphere environment observed with radio and optical techniques
A14	G33	H. Hashiguchi	Kyoto Univ.	Development of MU Radar Real-time Processing System with Adaptive Clutter Rejection
A15	G35	M. Yabuki	Kyoto Univ.	Development of a compact rotational Raman lidar for temperature measurements
A16		RISH		Middle Atmosphere Standard Observation with the MU Radar (GRATMAC)
B17	G38	S. Saito	ENRI	Validation of real-time ionospheric 3-D tomography
B18		RISH		Ionospheric Standard Observation with the MU Radar
C19	G05	H. Hashiguchi	Kyoto Univ.	Development of real-time ray-tracing and wind correction methods for EAR-RASS
C20	G12	R. Wilson	LATMOS	EAR Observations in Support of Strateole-2 (EAROS2)
C21	G22	Y. Shibagaki	Osaka E.-C. Univ.	Multi-scale structure of convective systems in Indonesian Maritime Continent
C22	G06	M. Abo	Tokyo Metro. Univ.	Monitoring of the tropospheric and stratospheric aerosols by the equatorial lidar
C23	G01	Y. Shibata	Tokyo Metro. Univ.	Observations of vertical haze profile using polarized lidar over equatorial Indonesia
C24	G08	H. Hashiguchi	Kyoto Univ.	Observational study on fine structure of clear air turbulence in the tropical troposphere
C25	G13	H. Hashiguchi	Kyoto Univ.	Development of an EAR multi-channel receiving system using digital receivers
C26	G20	T. Shimomai	Shimane Univ.	Observation of small scale atmospheric waves by an all sky camera at Kototabang
C27	G16	H. Hashiguchi	Kyoto Univ.	Observations of GNSS-PWV and GNSS-TEC at the EAR observatory
D28	G15	S. Saito	ENRI	Studies of spatial gradient in TEC and plasma bubble monitoring for GNSS
D29	G02	M. Nishioka	NICT	Observation of plasma bubble using data of EAR, SEALION and ground-based GPS receivers
D30	G14	M. Yamamoto	Kyoto Univ.	Study of equatorial Spread-F with satellite-ground beacon experiment and the Equatorial Atmosphere Radar
D31	G40	Y. Otsuka	Nagoya Univ.	Radar observations of the field-aligned irregularities in the ionosphere in Indonesia
E32	G37	H. Hashiguchi	Kyoto Univ.	Development of MU radar phase calibration system
BD33	D02	M. Yamamoto	Kyoto Univ.	Evaluation of GPS ionosphere tomography analysis by using MU radar observation database
CD34	D01	Findy Renggono	BPPT	Study on drop size distributions based on Equatorial Atmosphere Radar observations
CD35	D05	Marzuki	Andalas Univ.	Long-Term Observation of Vertical Profile of Raindrop Size Distribution over Sumatra
CD36	D06	Marzuki	Andalas Univ.	Rain Classification of MRR Observation at Kototabang Using Artificial Neural Networks
A37	G24	S. Mori	JAMSTEC	Maritime Continent automatic dependent Air-sea observation Network (MaCAN)

Reception No. CXX: 2021-RISH-MU/EAR-Campaign-000XX  
 GXX: 2021-RISH-MU/EAR-General-000XX (XX < 24) / 2020-RISH-MU/EAR-General-000XX (XX > 24)  
 DXX: 2021-RISH-MU/EAR-Database-000XX (XX < 03) / 2020-RISH-MU/EAR-Database-000XX (XX > 03)