



**Joint ICTP-IUGG Workshop on Data Assimilation and
Inverse Problems in Geophysical Sciences | (SMR 3607)**

18 Oct 2021 - 29 Oct 2021
Virtual, Italy

Wednesday, 20 October 2021

- 15:00 - 17:00** **Presentations by the workshop's participants (ORAL SESSION)**
- 15:05 **Determining the weights for the covariance matrix in a hybrid data assimilation scheme**
SIERRA LORENZO Maibys (Cuba)
- 15:20 **Inverse problem by optimal shape in a hyperbolic differential equation**
IDRISSA Ly (Senegal)
- 15:35 **Comparative study for global and local geophysical inversion methods in acoustic emission source location**
VESGA RAMIREZ Alejandra (Argentina)
- 15:50 Break (10')
- 16:00 **Linear & nonlinear inversion methods in analysis of surface waves data**
POORMIRZAEI Rashed (Iran)
- 16:15 **Data-driven multi-index overlay gold prospectivity mapping using geophysical and remote sensing datasets**
FORSON Dominic Eric (Ghana)
- 16:30 Q/A (30')

Thursday, 28 October 2021

- 09:00 - 11:00** **Presentations by the workshop's participants (POSTER SESSION)**
- 09:05 **Estimation of Aquifer Protective Capacity Using Geoelectrical Method in Odo Ona Elewe, Ibadan, Nigeria**
ADEREMI Lucia Folasade (Nigeria)
- 09:10 **Ionospheric signatures of Africa mid and low latitudes TEC during a geomagnetic storm on 19 February 2014**
ANORUO Moses Chukwuma (Nigeria)
- 09:15 **Assessing the dynamics of groundwater in Atebubu, the capital of the Atebubu-Amanten Municipality of Ghana**
BIENIBUOR Kpebbesaan Alfred (Ghana)
- 09:20 **Microwave versus Optical Remote Sensing Data in Urban Footprint Mapping of the Coastal City of Jeddah, Saudi Arabia**
ELHAG Mohamed (Saudi Arabia)



- 09:25 **Source Apportionment and Assessment of Air Quality Index of PM_{2.5}–10 and PM_{2.5} in at Two Different Sites in Urban Background Area in Senegal**
KEBE Moustapha (Senegal)
- 09:30 **Seismotectonics of Cameroon**
MBOSSI Ferdinand Eddy (Cameroon)
- 09:35 **Reservoir-Triggered Earthquakes Around the Atatürk Dam (Southeastern Turkey)**
BÜYÜKAKPINAR Pinar (Turkey)
- 09:40 **Data assimilation of volcanic eruption style using fluid dynamics method and thermodynamics principle: Case of Merapi in Indonesia**
IGOR COLLINS Djouda Paguem (Cameroon/UK)
- 09:45 Break (10')
- 09:55 **Validation of Precipitation Products with dense network of rain gauges over Tamil Nadu, India**
SAMYKANNU Venkadesh (India)
- 10:00 **Estimation of Evapotranspiration based on METRIC and SEBAL model using Remote sensing, near Al Jouf, Saudi Arabia**
YIBRIE Adem Esubalew (Ethiophia)
- 10:05 **Investigation of Leachate Plume Migrations around a Dumpsite on a Basement Complex of South-western Nigeria using VLF-EM and ERT Techniques**
OJO Olufemi Akintayo (Nigeria)
- 10:10 **Impact of radar data assimilation on the forecast of convective storms over the Cuba area**
FERRER HERNANDEZ Adrian Luis (Cuba)
- 10:15 **First infrasonic records in the Ocean - Solid Earth - Atmosphere interaction in the Bahía de Banderas region**
LÓPEZ Ortiz Yair (Mexico)
- 10:20 **Surface wave study beneath the Sumatra for preliminary upper crust investigation**
IRWANDI Irwandi (Indonesia)
- 10:25 **Impact of the assimilation of data applied to SisPI on the forecast of tropical storm Eta as it landfall over the center of the country**
GONZALEZ Pedro (Cuba)
- 10:30 **Modeling of Total Electron Content and Scintillation over the South American Longitudinal Sector**
OSANYIN Olusayo Taiwo (Brazil)
- 10:35 **NIL**
MAITY Suman (India)
- 10:40 Q/A (20')



Thursday, 28 October 2021

15:00 - 17:00	Presentations by the workshop's participants (ORAL SESSION)
15:05	Crustal structure and discontinuities beneath the Nepal Himalaya using seismic ambient noise and teleseismic P wave coda autocorrelation THAPA Hari Ram (Nepal/Italy)
15:20	Shear wave splitting measurements in the Mexican Subduction Zone LEON SOTO Gerardo (Mexico)
15:35	Application of clustering-based stress inversions in the Vrancea-zone (SE-Carpathians) CZIROK Lili (Hungary)
15:50	Break (10')
16:00	Constraining the Source of Earthquake Using Time Reversal Seismic Data SHARMA DHAKAL Apsara (Nepal)
16:15	Estimation of cumulative evapotranspiration using superconducting gravity data PENDIUK Emmanuel Jonatan (Argentina)
16:30	Modelling volcano surface deformation with a poroelastic magma reservoir ALSHEMBARI Rami M. K. (Palestine/UK)
16:45	Q/A (15')