

V WORKSHOP ON ROBOTIC AUTONOMOUS OBSERVATORIES

(Mazagón (Huelva), 16 - 20 Oct 2017)

FINAL SCIENTIFIC PROGRAM

05/10/2017

Parador Nacional de Mazagón "Cristóbal Colón", Carretera de San Juan del Puerto a Matalascañas (Mazagón, Huelva, Spain)

Sunday 15 October

18:30-20:30 Registration opens (in the Conference Hall, upper floor, just above the Parador main hall)

Monday 16 October

08:30-10:00 Registration (Conference Hall)

10:00-10:30 Official Opening

10:30-11:00 Astronomical observatories: from the Prehistory
to the XVIIIth Century (Opening Talk)
(*Miguel Ángel CASTRO*)

11:00-11:30 Coffee Break

11:30-11:50 A new Era for Astronomy (*John BARUCH*)

Session I New HW and SW development (I)

11:50-12:10 Development of a cloud detection system utilizing
image recognition technology (*Yoichi YATSU*)

12:10-12:30 Robotic Telescopes at SAO-RAS (*Sergei FABRIKA*)

12:40-13:00 From an automated telescope to a robotic teles-
cope: The Virgin Island Robotic Telescope story
(*Bruce GENDRE*)

13:15-16:00 Lunch in Mazagón (included, bus provided)

Session II Telescope and Observatory Control Systems

16:00-16:20 Status of MONET Telescopes (*Tim-Oliver HUSSER*)

16:20-16:40 The Concept of Observation Control System for
Lijiang 2.4m Telescope (*ChuanJun WANG*)

Session III Transient detection and classification (I)

16:40-17:00 Observations of transient events with Mini-
MegaTORTORA wide-field monitoring system with
sub-second temporal resolution (*Sergey KARPOV*)

17:00-17:20 The Zwicky Transient Facility (*Reed RIDDLE*)

18:00-20:30 Optional activity (20 eur/person): Horse ride at the beach to see the Gold Tower (see Conference Poster) at the sunset at 19:50h during the low tide. Riding time: 18:30-20:15h, no previous ride experience needed. Maximum: 16 people. Those ones not taking the ride can get down to the Parador beach to grab shells, stones, etc.

21:00-22:45 Free evening (bus provided to Mazagón for dinner)

Tuesday 17 October

Session IV Scientific results obtained at Robotic Observatories (II): Other sources

- 09:30-09:50 Microquasar V404 Cyg /GS 2023+338: MASTER Net optical monitoring during the June-July 2015 super-outburst (*Daniil VLASENKO*)
- 09:50-10:10 Multifrequency search for prompt emission of GRBs (*Alexei POZANENKO*)
- 10:10-10:30 MASTER investigation of ANTARES, IceCube alerts (*Oleg GRESS*)
- 10:30-10:50 Capabilities and Early Science Results from the Virgin Islands Robotic Telescope (*David MORRIS*)
- 10:50-11:20 Coffee Break
- 11:20-11:40 On the search of the elusive Intermediate Mass Black Holes (*María D. Caballero-García*)

Session V New HW and SW development (II)

- 11:40-12:00 Bringing old telescopes to a new robotic life (*Vicent SUC*)
- 12:00-12:20 Robo-AO: Five Years of Robotic Science (*Reed RIDDLE*)
- 12:20-13:00 Posters presentations (sessions I-V, 3' each)
 -BOOTES-5 status (*Sergiy GUZIY and Juan C. TELLO*)
 -Dome interior temperature monitoring system (*Murat KOCAK*)
 -RTS2 operated 50cm autonomous telescope at MIRO (*Shashikiran GANESH*)
 -Application made with LabVIEW to control Telescopes (*Rubén MARTÍN*)
 -U-SmART: Small Robotic Telescopes for Universities (*Patrick GEBHART*)
 -A 45cm monster (*Martin SCHWARTZ et al.*)
 -Modernization Works on TUG-T60 Robotic Telescope (*Murat DINDAR et al.*)

- Eastern Anatolia Observatory: Recent developments (Cahit YESILYAPRAK and O. KESKIN)
- DAG Observatory Control System (*Bulent GUCSAV*)
- Introducing Observatory of Iranian Space Agency Mahdasht Space Centre (*Fatemeh BAHRANI*)
- Upgrades and Automation at the Vatican Advanced Technology Telescope (VATT) (*Scott SWINDELL et al.*)
- Diverse developments at OAA (*Francisco ESPARTERO et al.*)

13:15-16:00 Lunch in Mazagón (included, bus provided)

Session VI Scheduling

- 16:00-16:20 Automation and Queue Management at CSS for NEO Surveying and Follow Up (*Alex GIBBS*)
- 16:20-16:40 GlSch: observation scheduler for the GLORIA telescope network (*M^a Carmen LÓPEZ CASADO et al.*)

Session VII Scientific results obtained at Robotic Observatories (II): Galactic sources

- 16:40-17:00 2MASS J16211735 + 4412541 A cataclysmic variable in disguise (*Staszek ZOLA*)
- 17:00-17:20 V404: MASTER Optical Polarization Variability Detection (*Daniil VLASENKO*)
- 17:20-17:40 Light curves comparison: robotic observatory versus non-robotic one (*Fatemeh BAHRANI*)
- 18:00-20:45 Optional activity (20 eur/person): Horse ride at the beach to see the Gold Tower (see Conference Poster) at the sunset at 19:50h during the low tide. Riding time: 18:30-20:30h, no previous ride experience needed. Maximum: 16 people. Those ones not taking the ride can get down to the Parador beach to grab shells, stones, etc.
- 21:00-22:45 Free evening (bus provided to Mazagón for dinner)

Wednesday, 18 October

08:00-15:00 Guided visit to Doñana National Park (4 hr, 0830-1230 h), Bus departures a 08:00 from Parador and Arrival to Parador is expected at 15:00 (after lunch).

Session VIII Scientific results obtained at Robotic Observatories (III): Gravitational Waves

16:00-16:20 Optimized strategies for the search of electromagnetic counterparts to Gravitational Wave Alerts (*Youdong HU*)

16:20-16:40 Prospects for searching for Gravitational Waves electromagnetic counterparts at other wavelengths (*Binbin ZHANG*)

16:40-17:00 GRB prompt and LIGO/VIRGO follow up by MASTER Global Robotic Net (*Vladimir LIPUNOV*)

17:00-17:30 Coffee Break

17:30-17:50 LIGO/Virgo search in O2 and strategy for EM counterparts in O3 (*Alexei POZANENKO*)

Session IX Transient detection and classification (II)

17:50-18:10 MASTER 1500 optical transients (*Nataly TYURINA*)

18:10-18:30 Exploring the transient sky with the Fly's Eye Camera System (*László MÉSZÁROS*)

20:30-22:30 Free evening (bus provided to Mazagón for dinner)

Thursday 19 October

Session X Developments in Antarctica

- 09:30-09:50 The AST3 controlling and operating system for automatic sky survey at Dome A, Antarctica
(*Yi HU*)
- 09:50-10:10 Below -75° C, Overwintering 2015, Dome Concordia, Antarctica (*Markus WILDI*)
- 10:10-10:30 Chinese antarctic astronomical telescopes
(*Xiaoayan LI*)
- 10:30-10:50 Posters Presentations (session VII) (3' each)
-Some techniques for the study of meteors
(*Alberto CASTELLÓN*)
-Double-station meteor observations with Mini-MegaTORTORA and FAVOR wide-field cameras
(*Sergey KARPOV*)
-Photometry of 2012 DR30 and 2002 GZ32
(*Mattia GALIAZZO*)
-An application for the automated classification of variable stars from the ROTSE IIIId Archive
(*Cahit YESILYAPRAK*)
- 10:50-11:20 Coffee Break

Session XI Balloons and satellites

- 11:20-11:40 Pointing System for the Balloon-Borne Astronomical Payloads (*Nirmalk KAIPACHERY*)
- 11:40-12:00 'Satellite-in-a-Box': the SMOS approach (or how to pack your space mission monitoring in a mobile device) (*José María CASTRO CERÓN et al.*)
- 12:00-12:05 Posters Reports (session XI) (3' each)
-A micro-satellite for ultraviolet transient exploration (*Yoichi YATSU*)
- 12:05-13:00 Frontier Research in Astrophysics: an updated review (*Franco GIOVANNELLI and Lola SABAU-GRAZIATI*)
- 13:15-16:00 Lunch in Mazagón (included, bus provided)

Session XII Space Surveillance and Tracking

- 16:00-16:20 Optical observations in ESA's SSA programme
(*Beatriz JILLETTE*)
- 16:20-16:40 ISON Network Tracking of Space Debris: current
status and achievements (*Igor MOLOTOV*)
- 16:40-17:00 Automated extraction of satellite trails from
wide angle CCD imagery (Grant PRIVETT)
- 17:00-17:20 The BOOTES Network: science and SSA applications
(Alberto J. CASTRO-TIRADO)
- 18:00-22:30 Visit to Palos village and Wharf of Carabels AND
Conference Dinner at old Winery "El Lobito" in
Moguer village
- 23:00-24:00 Traditional AstroRob after-dinner bath at the sea
(lantern needed to go down to the beach; 179
wooden steps)

Friday 20 October

09:30-12:45 Guided visit to INTA Defence's Ministry campus,
5 km away (including ESAt where BOOTES-1 and
Pi-of-the-Sky stations are located)

12:45-13:00 Concluding Remarks at ESAt (*Ferhat Fikri ÖZEREN*)

13:15-16:00 Lunch in Mazagón (included, bus provided,
stopping at Parador after leaving INTA)

16:00-19:00 Free afternoon

19:00-20:00 Optional activity (5 eur/person). Yoga at
sunset (sunset time at 19:45) at Parador's
mirador

20:30-22:30 Free evening (bus provided to Mazagón for dinner)