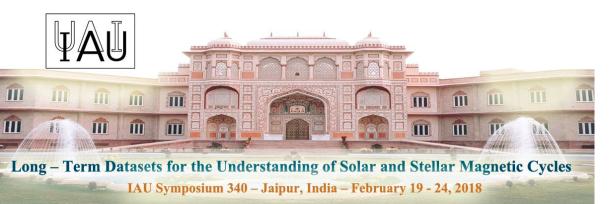


# **ISWI Philippines Report**

## 2018

by Quirino Sugon Jr [1,2]

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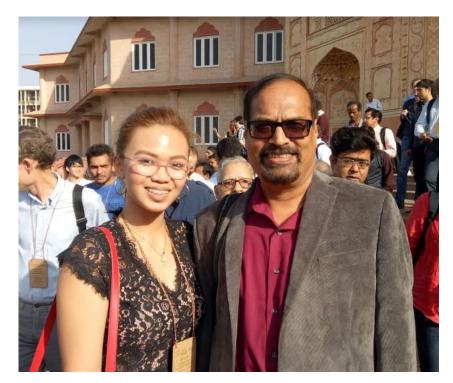


Correlation of the New Sunspot Number and Geomagnetic aa Index in the Years 1900-2013 M.R. Eduardo<sup>1</sup>, Q.M. Sugon<sup>2,3</sup>, B.A.R. Pelicano<sup>1,4</sup> corresponding author mendicardollup ada ph "Department of Physical Spences, College of Spence, University of the Philippines Baguo, Government Pack Road, Bagyin City, Philippines 2000 <sup>1</sup>Upper Atinciphere Dynamics, Mania Observatory, Quezen City, Philippines 1800. Department of Phytics, School of Science and Engineering, Aterno de Marila University, Quezon Gra-TAU SYMOOSUM 340 Philephet 1800 \*Philippine Science High School - CAR Camput, Bagura City, Philippines 2000



**Left:** Marielle Eduardo of University of the Philippines-Baguio gives an oral presentation at the IAU Symposium 340: Long-Term Datasets for the Understanding of the Solar and Stellar Magnetic Cycles (Jaipur, India; Feb 19-24, 2018).

## Correlation of the New Sunspot Number and Geomagnetic aa Index in the Years 1900-2013



Marielle R. Eduardo (UP-Baguio) and Nathaniel Gopalswamy, PhD (NASA) at Jaipur, India (Feb 2018)

The recalibration of the sunspot number series has established a new standard version for sunspot time series that requires updating of prior results based on the calibration. These recent sunspot number corrections mean a change in the results of the previous correlational studies of ISSN with geomagnetic indices, such as the aa-index. In this paper, we investigate the correlation between the old and new sunspot numbers ISSN and SN and their relationship with the aa index through time series, using the methods of Echer et. al (2004), Verma & Trippathi (2016), Stamper et. al (1996), and Feynman (1982).

Eduardo, M.R., Sugon, Q.M. and Pelicano, B.A.R., 2018. Correlation of the New Sunspot Number and Geomagnetic aa Index in the Years 1900-2013. *Proceedings of the International Astronomical Union*, *13*(S340), pp.43-46.

### The Philippines Crossing the Atmospheric Borders



The DOST Space Forum, "The Philippines: Crossing the Atmospheric Borders," was held last 20 July 2018 during the DOST National Science and Technology Week (NSTW) at the World Trade Center in Pasay City, Philippines.

(Photo credit: DOST-STII. https://youtu.be/FoOB4D9I32M)

### The Philippines Crossing the Atmospheric Borders



From left to right: 1. Rogel Mari Sese, PhD, Project Head of National Space Development Program of DOST, 2. Gemma Teresa T. Narisma, PhD, **Executive Director of Manila** Observatory, 3. May Celine Thelma M. Vicente, Phd, Head of Geomatics for Environment and **Development Laboratory of** Manila Observatory, and 4. James Bernard B. Simpas, Co-Head of Urban Air Quality / Instrumentation Technology Development Laboratory of Manila Observatory.

(Photo credit: Quirino Sugon Jr, PhD)

#### The Philippines Crossing the Atmospheric Borders 20 July 2018, Friday | World Trade Center, Pasay City, Philippines

TIME	ACTIVITY
8:00 AM-9:00 AM	Registration
9:00 AM-9:10 AM	Opening Remarks Fortunato T. De La Peña Secretary, Department of Science and Technology
9:11 AM-9:20 AM	Keynote Remarks Sen. Paolo Benigno "Bam" Aquino IV <i>Chair</i> , Committee on Science and Technology Senate of the Philippines
9:21 AM-9:25 AM	Group Photo
Plenary Session 1: Space Technology: A new universe of opportunities	
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9:26 AM-9:40 AM	National Security and Application Dr. Hal Maring National Aeronatics and Space Administration (NASA), United States of America
9:41 AM-9:55 AM	Dr. Enrico C. Paringit UP Diliman, Philippines
9:56 AM-10:10 AM	Dr. Alan T. Ortiz Philippine Council for Foreign Relations, Philippines
10:11 AM-10:25 AM	Hazard Management and Climate Studies Dr. Gemma Teresa T. Narisma Manila Observatory, Philippines
10:26 AM-10:40 AM	Ms. Thelma Cinco Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), Philippines
10:41 AM-10:55 AM	Space International Cooperation GISTDA
10:56 AM-11:05 AM	Open Forum
11:06 AM-11:35 AM	Workshop and table discussion

11:36 AM-11:45 AM	Synthesis
11:46 AM-13:00 PM	Lunch Break
Plenary Session 2:	Launching the future
13:00 PM-13:15 PM	Space Research and Development Dr. Hiroshima Shirakawa Japan Aerospace Exploration Agency (JAXA), Japan
13:16 PM-13:30 PM	Dr. Joel Joseph S. Marciano, Jr. Advanced Science and Technology Institute, Philippines
13:31 PM-13:45 PM	Mr. Alex da Silva Curiel Surrey Satellite Technology Ltd., United Kingdom
13:46 PM-14:00 PM	Dr. Rogel Mari D. Sese National Space Development Program, Philippines
14:01 PM-14:10 PM	Coffee Break
14:11 PM-14:25 PM	Space Industry Capacity Building Mr. Oleg S. Grafodatsky NPO Lavochkin, Russia
14:26 PM-14:40 PM	Dr. Leo Almazan Balik-Scientist expert, Philippines
14:41 PM-14:55 PM	Space Education and Awareness Prof. Yukihiro Takahashi Hokkaido University, Japan
14:56 PM-15:10 PM	Dr. Gay Jane Perez UP Diliman, Philippines
15:11 PM-15:20 PM	Open Forum
15:21 PM-15:50 PM	Workshop and table discussion
15:50 PM-16:00 PM	Synthesis
16:00PM-16:10 PM	Closing Remarks Dr. Rowena Cristina L. Guevarra, <i>Undersecretary</i> for R&D cum Space Development Taskforce <i>Chair</i> , Philippines
	Master of Ceremony Ms. Jeramie M. Caballes, Project Development Officer Office of the Assistant Secretary for International Cooperation

## 2018 National Meeting on Space Science and Applications



Ernest Macalalad, PhD of Mapua Institute of Technology. Co-organizer of the 2018 National Meeting on Space Science and Applications. The Samahang Pisika ng Visayas at Mindanao (SPVM) in coordination with Caraga State University and Mindanao State University–Iligan Institute of Technology held its 20th SPVM National Physics Conference on October 19-21, 2018 at Almont Inland Resort, Butuan City, Philippines. Aside from the main conference, SPVM also organized the 2018 National Meeting on Space Science and Applications last October 20, 2018. This gathering served as the venue of active and friendly discourse between researchers, professors and students from all over the country to share their expertise in the field of space science and applications.



19-21 October 2018 Almont Inland Resort Butuan City, Philippines

## 2018 National Meeting on Space Science and Applications



Seated from left to right: 1. Ruby Jane D. Navarro (Manila Observatory/ Ateneo de Manila University), 2. Engr. Raul Sabularse, Deputy Director of PCIEERD. 3. Ernest Macalalad, PhD (co-organizer of the 2018 National Meeting on Space Science and Applications/ Mapua Institute of Technology), 4. Rogel Mari D. Sese, PhD (Program Leader of the Philippine National Space Development Program), 5. Mark Nolan Confessor, PhD (Chair of the Department of Physics of MSU-IIT). Standing behind Ms. Navarro is SPVM President Leo Cristobal C. Abolode II, PhD.

## 2018 National Meeting on Space Science and Applications

- "Photometry light curve analysis of eclipsing binary EW/BW CAS star" by R.A.B. Bautista and J.M. Ollero
- "Development of microcomputer-based data acquisition system for a Very Low Frequency (VLF) monitor for space weather studies" by R.B. Deveza, S.M.L. Lamod, A.J.H. Saccuan, J.F. Villaverde, E.P. Macalalad
- "Analysis of the ionospheric total electron content during the series of September 2017 solar flares over the Philippines over the Philippine-Taiwan region" by M.M. Mendoza, K.E.S. Juadines, and E.P. Macalalad
- "Ionospheric foF2 observations at Quezon City, Philippines for solar cycle 21: comparison with IRI 2016 model" by R.J.D. Navarro, Q. Sugon Jr, C.D. Bennett, D.J. McNamara, and A. Yoshikawa
- "Chandra space telescope reveals the invisible universe" by J.G.B. Nonesa

## BS Aerospace Engineering at Ateneo de Davao University



Fr. Daniel J, McNamara, Ph.D. will be one of the instructors of Ateneo de Davao University's Aerospace Engineering program, a first in the country. The Ateneo de Davao University (AdDU) in Davao City is introducing a Bachelor's Degree in Aerospace Engineering, ahead of Philippine government plans to develop a space industry and attract space-related investments to Mindanao. The degree program, the first ever in the country, is starting this semester, according to Fr, Daniel J, McNamara, Ph.D., AdDU's physics coordinator. He explained the idea arose from the Department of Science and Technology's (DOST) proposal to set up a space facility in Mindanao in the next two years as part of the National Space Promotion, Awareness, and Capabilities Enhancement (SPACE) Development Program. Under the leadership of Filipino astrophysicist Dr. Rogel Mari Sese, the program aims to put in craft a 10-year plan to promote space development in the Philippines and make the country competitive in space-related investments.

--https://www.entrepreneur.com.ph/run-and-grow/ateneo-de-davao-launches-a erospace-engineering-program-as-ph-seeks-satellite-launch-ventures-for-mind anao-a1843-20181011-lfrm