ASTRONOMICAL SOCIETY OF NIGERIA (ASN)

4TH
NATIONAL CONFERENCE / AWARD OF FELLOWS

Theme

AFRICAN VERY LONG BASELINE INTERFEROMETRY (A - VLBI) NETWORK: PROSPECTS AND CHALLENGES

Date:

October 29 - November 02, 2014.

Venue:

Prof. (Sen.) Ajayi Boroffice Conference Centre,
National Space Research and Dev. Agency, (NASRDA)
Federal Capital Territory, Abuja.

TECHNICAL SESSIONS

THURSDAY October 30, 2014

GROUP 1: Astronomy, Astrophysics, Particle Physics and Cosmology

S/N	TITLE OF PAPER	AUTHOR(S)	TIME
A01	The Effect Of Cosmic Ray Flux On ___	Chima, A.I, Ugwoke, A.C, and Umahi, A.E	2.00 – 2.15 PM
A02	Regions of Hard X-rays In Magnetic Cataclysmic Variables (mCV) Ex Hya Using Suzaku	S. Esaenwi, R.N.C. Eze and C.N. Ofodum	2.15 – 2.30 PM
A03	The Structure and Properties of Matter in White Dwarfs And Neutron Stars	Eya, I. O., Urama, J. O., and Chukwude, A. E.	2.30 – 2.45 PM
A04	Gravitational Lensing as a Cosmological Tool for Studying Dark Matter in Galactic Halo	J. Muami., A.A Ubachukwu and J.A Alhassan	2.45 – 3.00 PM
A05	Seyfert 2 With and Without Hidden Broad-Line Regions: Intrinsic Different Population or Evolutionary Sequence	J. N. Ogwo, A. A. Ubachukwu and D. I. Oyor	3.00 – 3.15 PM
A06	The Design and Construction of CBSS 6m Radio Telescope	F. E. Opara, B. I. Okere, C. N. Ofodum, O. L. Daniyan and others	3.15 – 3.30 PM
A07	On the Discovery of Unusual, Isolated 16.7-minutes Pulsation in the Coolest, Chemically-Peculiar roAp Star HD 101065	C. N. Ofodum, P. N. Okeke, P. Martinez,[2] and F. van Wyk	3.30 – 3.45 PM
A08	A Statistical Study of Jet component Properties in Superluminal Active Galactic Nuclei	Aralu, O., Onuchukwu C. C. and Leghara E	3.45 – 4.00 PM
A09	An Evaluation of a Possible VLBI Observatory Programme Between Nigeria and HartRAO (South Africa)	B. I. Okere, A. E. Chukwude , P. O. Onubi, O. O. Adeoti, F. E. Opara and K.O. Adeshina	4.00 – 4.15 PM
A10	Extended Radio Luminosity of Core-Dominated Quasars: Relativistic Beaming Versus Intrinsic Asymmetry	F. C. Odo and A. A . Ubachukwu	4.15 – 4.30 PM
A11	3C 216: A Radio Investigation of a Powerful Galactic – sized Quasar	C. E. Akujor, R. W. Porcas, E. Ludke and O. A. Ogungbenro	4.30 – 4.45 PM
A12	The Nature and Unification of Seyfert Galaxies	J. N. Ogwo and D. I. Oyor	4.45 – 5.00 PM
A13	Anomalous Braking Indices: A Signature of Radio Pulsar Secular Spin-down Evolution or Timing Noise Processes?	A. E. Chukwude	5.00 – 5.15 PM
A14	Regions of Hard X-rays In Magnetic Cataclysmic Variables (mCV) Ex Hya Using Suzaku	S. Esaenwi, R.N.C. Eze and C.N. Ofodum	5.15 – 5.30 PM
A15	On the Origin of the Iron Fluorescent Line Emission from the Galactic Ridge	R. N. C. Eze	5.30 – 5.45 PM
A16	A Study of Possible Causes of the Inconsistency in Bode's Law	A.C. Ugwoke, A. I. Chima and S. Oribioye	5.45 – 6.00 PM

B02. CORS/GNSS Observatories - A Paradigm Shift; Possibilities, Challenges and the Way Forward

Odumosu, J. O [(1)]; Zitta, N [(1)]; Ajayi, O. G [(1)]; Adesina, E. A[(1)] and Kuta A [(1)]

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Department of Surveying & Geoinformatics, Federal University of Technology, Minna.

Abstract

With increasing tendencies of rifting, folding and changes within the Pre-cambrian and Mesozoic rocks that dominates the Nigerian plate, coupled with other natural earth dynamics as the eotvos effect, coriolis-effect e.t.c; stress and strain are expected to accumulate within such fault regions. Having identified methods and models for strain measurement, this paper presents the use of CORS for the measurement of stressed/strain fields on the Nigerian Platform. Experimental results have been presented in this paper and a mean East-West Velocity of 0.003m/s, North-South Velocity of 0.002m/s and Up-Down Velocity of 0.001m/s discovered within the North – Eastern part of Nigeria using the Bernin-Kebbi CORS (BKFP01).

B03. An Appraisal of Forest Degradation and Carbon Sequestration of Effan Forest Reserve in Kwara State

Alhassan Abubakar[1], Aishatu Abdulkadir[2], Abdullahi Jibrin[3] Rukkaya Bahago Abubakar[4] And Aliyu Inuwa Adda

[1,2,4,5]. Federal University of Technology, P.M.B. 65, Minna, Niger State, Nigeria.

[3]. Ahmadu Bello University, P.M.B. 1069, Zaria, Nigeria.

Abstract

This study describes an effort to estimate the amount of forest degradation and carbon sequestration for Effan Forest Reserve using remote sensing/GIS techniques. The study adopted 14 sampled plots-simple randomly based method, Remote Sensing –Land Use/Land Cover based method for change detection, Vegetation Difference Normalized Index (NDVI) to determine vegetation reflectance, field data and use of Allometric model equation for biomass and carbon sink estimation. The Results revealed that there was decrease in the *Gmelina arborea* plantation in which so many trees were harvested thereby converting part of the reserve to Sapling/Shrubs (i.e. re-generating part). Despite the fast regenerating capacity of *Gmelina arborea*, there is increase in the number of Sapling/Shrubs size in the Reserve which is an evidence of forest degradation between 2001 and 2006. The vegetation reflectance also revealed that vegetation reflectance is high in 2001 and is low in 2006 which also confirms an evidence of forest degradation. The total above-ground biomass and carbon sink of the Reserve estimated