Daftar Publikasi FMIPA Tahun 2013


Indratno, Permana, Anisah Husniah Iskandar, Page Sari S.W., Husniah Iskandar Setiyowati, Vantika Windarto, Fakultas Syukriyah, K.N., Rika Indratno, dan H., H., S.W., Pasaribu dan Pasaribu

Iskandar B.P., Husniah H., and Pasaribu U.S., Maintenance Service Contracts for Equipment Sold with Two Dimensional Warranties, Jurnal Quality Technology and Quantitative Management (QTQM)(special issue on "Quantitative Evaluation in Reliability and Maintenance"


Husniah H., Pasaribu U. S. and Iskandar B.P., A Servicing Strategy Involving Imperfect Repair for Two-Dimensional Warranties, Prosiding : 3rd International Conference on. Instrumentation Control and Automation

Iskandar B.P., Pasaribu U. S. and Husniah H., Performance Based Two Maintenance Contracts for Equipment Sold with Two Dimensional Warranties, Proceedings: CIE43, The University of Hongkong

Husniah H., Pasaribu U. S. and Iskandar B.P., A Servicing Strategy Involving Preventive Maintenance and Imperfect Repair for Two Dimensional Warranties, Proceedings: CIE43, The University of Hongkong


Baiq Rika dan S.W. Indratno Ketaksamaan harnack dalam konteks graf, Konfererensi Nasional Matematika ke XVI, UNPAD

S.W. Indratno, D. Maldonado and S. Silwal, A visual formalism for weights satisfying reverse inequalities, preprint

Windarto, S.W. Indratno, N. Nuraini and E. Soewono, A Comparison of Binary and Continuous Genetic Algorithm in Parameter Estimation of a Dynamical Model, preprint (aip proceeding)


N. Nuraini, Windarto, S. Jayanti & E. Soewono, A two-dimensional Simulation of Plasma Leakage due to Dengue Infection, AIP ICMNS 2012

Grace, Sparisoma Viridi, N. Nuraini, Model Empirik Kecepatan Kritis Berjalan dan Berlari, SNIPS FISIKA

D. Handayani, N. Nuraini, N. Primasari, K. P. Wijaya, Treatment simulation of dengue infection with-in human body, AIP ICMNS 2012

Janson Naiborhu and Firman, Output Tracking of Non-minimum Phase Nonlinear Systems Through Exact Linearization, Proceedings of The World Congress on Engineering and Computer Science 2013, pp988-991


Novriana Sumarti, Agung Laksono and Viony A. Jantoro, Simulated Annealing based Approach for the Dynamic Portfolio Selection of Stocks, Proceeding of South East Asian conference on Mathematics and its applications (SEACMA) 2013


I. Magdalena, S.R. Pudjaprasetya, Numerical Modelling of 2D Wave Refraction and Shoaling, AIP Proceeding of ICMNS

Nugrahinggil Subasita, Hamzah Latief, S.R. Pudjaprasetya, The SWASH Model for Soliton Splitting Due to Decreasing Depth, AIP Proceeding of ICMNS

Novry Erwina, S.R. Pudjaprasetya, Reflection wave from a sloping beach, AIP Proceeding of ICMNS
Sugih S. Tjandra, S.R. Pudjaprasetya, Natural Frequency of Regular Basin, AIP Proceeding of ICMNS


A.L. Nevai, E. Soewono, A mathematical model for the spatial transmission of dengue in a discrete and periodic environment, advance access appears at Mathematical Medicine and Biology, 2013


Fatmawati, Saragih, R., Soeharyadi, Y., Reduced-order model based on H∞-balancing for infinite-dimensional systems, Applied Mathematical Sciences 7 (9-12) pp. 405-418


Solikhatun, Roberd Saragih, and Endra Yoelianto, Reduced order bilinear time invariant systems using singular perturbation, Proc. of 3rd International Conference on Instrumentation Control and Automation


Suakanto, S., Supangkat, S.H., Suhardi, Saragih, R., Smart city dashboard for integrating various data of sensor networks, Proceedings - International Conference on ICT for Smart Society 2013: "Think Ecosystem Act Convergence", ICISS 2013, art. no. 6588063, pp. 52-56

Solikhatun, Roberd Saragih, and Endra Yoelianto, Least upper bounds of error transfer functions of reduced order bilinear time invariant systems, Proc. of 2nd IEEE Conference on Control, Systems and Industrial Informatics

Yessi Permana, Ring-Opening of Oxiranes using Taeniolite-Supported Tris (ß-Diketonato) Zirconium, ITB Journal of Science

Veinardi Suendo, Effect of Electrochemical Reaction Environment on the Surface Morphology and Photoluminescence of Porous Silicon, Materials Science Forum

I Made Arcana, Properties of Polymer Electrolyte Membranes Prepared By Blending Of Sulfonated Polystyrene-lignosulfonate,ITB Journal of Science

Iqbal Fauzi, Deana Wahyuningrum, I Made Arcana, The Effect of Succinyl Gruops and Lithium Perchlorate on Chitosan Membrane Properties as Solid Polymer Electrolyte, the International Conference and Exhibition on Innovation in Polymer Science and Technology in conjunction with the 4th International Conference on Fuel Cell and Hydrogen Technology 2013
(ICFCHT2013) (IPST-ICFCHT2013), Yogyakarta, Indonesia, October 7 – 10, 2013


Achmad Rochlidi, I Made Arcana, Bunbun Bundjali, Multazam, During Charge/Discharge Cycle, Vehicle Technology will be held from November 26-27, 2013


C. L. Radiman, A. Sarinastiti, Cellulosic materials as polymer electrolyte membrane in fuel cell applications, Jurnal Selulosa

C. L. Radiman, A. Rifathin, Preperation of phosphorylated nata-de-coco for polymer electrolyte membrane applications, Journal of Applied Polymer Science

Rino Rakhmata Mukti, Sulfonic acid functionalized MCM-41 as solid acid catalyst for tert-butylation of hydroquinone enhanced by microwave heating, Applied Catalysis A: General
Rino Rachmata Mukti, Formation of Hierarchically Organized Zeolites by Sequential Intergrowth, Angewandte Chemie

Rino Rachmata Mukti, Eco-friendly synthesis for MCM-41 nanoporous materials using the non-reacted reagents in mother liquor, Nanoscale Research Letters

Rino Rachmata Mukti, Role of 3-aminopropyltriethoxysilane in the preparation of mesoporous silica nanoparticles for ibuprofen delivery: Effect on physicochemical properties, Microporous and Mesoporous Materials

Rino Rachmata Mukti, Ionothermal approach for synthesizing AIPO-5 with hexagonal thin-plate morphology influenced by various parameters at ambient pressure, Solid State Sciences

R. Rachmawati, A. J. J. Woortman, K. Loos, Facile preparation method for inclusion complexes between amylose and polytetrahydrofurans, Biomacromolecules

R. Rachmawati, A. J. J. Woortman, K. Loos, Tunable Properties of Inclusion Complexes Between Amylose and Polytetrahydrofuran, Macromolecular Bioscience

R. Rachmawati, A. J. J. Woortman, K. Loos, Solvent-Responsive Behavior of Inclusion Complexes Between Amylose and Polytetrahydrofuran, Macromolecular Bioscience

Veinardi Suendo, Effect of Electrochemical Reaction Environment on the Surface Morphology and Photoluminescence of Porous Silicon, Materials Science Forum

Veinardi Suendo, Influences of Dopant Concentration in Sol-Gel Derived AZO layer on The Performance of P3HT:PCBM Based Inverted Solar Cell, Solar Energy Materials & Solar Cells

Veinardi Suendo, Investigation of Silicon Heterojunction Solar Cells by Photoluminescence under DC Bias, European Physical Journal: Photovoltaic


Adha Sukma Aji and Yudi Darma, Carbon Film Deposition on SnO2/Si(111) using DC Unbalanced Magnetron Sputtering, AIP Conf. Proc. 1454 (2013), pp. 93-96

P. Fitriani, S. Merisa, F. Iskandar, R. R. Mukti, M. Abdullah, M. Abdullah and Khairurrijal, Effect of Fe3O4 Composition on Catalytic Properties of Fe3O4/Zeolite Nanocomposites as Catalyst in Aquathermolysis, 8th Indonesian Zeolite Seminar

A. Saripudin, H. Saragih, Khairurrijal, T. Winata dan P. Ariffin, Effect of Growth Temperature on Cobalt-doped TiO2 Thin Films deposited on Si (100) Substrate by MOCVD Technique, International Conference on Advanced Materials Science and Technology

P. Noorlaily, M. I. Nugraha, Khairurrijal, M. Abdullah, F. Iskandar, Ethylene Glycol Route Synthesis of Nickel Oxide Nanoparticles as a Catalyst in Aquathermolysis, Materials Science Forum


T. Winata, L2 Method and Algebraic Computation Approach for Target in Atomic Collision Calculation, 4th International Conference in Frontier Physics

T. Winata, Material Research and Development for Solar Cell Devices, Seminar & Workshop Sel Surya


S. Merisa, P. Fitriani, F. Iskandar, R. R. Mukti, M. Abdullah, M. Abdullah and Khairurrijal, Optimization of Natural Zeolites Performance by Activation and Their Application for Decreasing the Viscosity of Heavy Oil, 8th Indonesian Zeolite Seminar


M. M. Munir, A. Y. Nuryantini, Khairurrijal, M. Abdullah, F. Iskandar, K. Okuyama, Preparation of Polyacrylonitrile Nanofibers with Controlled Morphology Using a Constant-Current Electrospinning System for Filter Applications, Materials Science Forum

Adha Sukma Aji and Yudi Darma, Simulation of Charge-Trapping Effect on Floating Gate Si/Ge/Si Quantum Dots MOSFET Memory with High-κ Tunnel Oxide, ICICI-BME Proceeding 2013


Adha Sukma Aji and Yudi Darma, Spectroscopy Analysis of Graphene Like Deposition using DC Unbalanced Magnetron Sputtering on γ-Al2O3 Buffer Layer, NNS Proceeding, to be published on AIP proceeding end of 2013


R.A. Salam, A. Rosikhin, G. M. Kartiwa, D. Anggoro, dan T. Winata, Studi Preparasi Nanokatalis Perak (Ag) untuk Penumbuhan Silikon Nanowire, Seminar Nasional Material 2013


M. Rosi, F. Iskandar, M. Abdullah, Khairurrijal, Syntheses and Characterizations of Supercapacitors Using Nano-Sized ZnO/Nanoporous Carbon Electrodes and PVA-Based Polymer-Hydrogel Electrolytes, Materials Science Forum

T. Nurhayati, F. Iskandar, Khairurrijal, M. Abdullah, Syntheses of Hematite (α-Fe2O3) Nanoparticles Using Microwave-Assisted Calcination Method, Materials Science Forum

M. I. Nugraha, P. Noorlaily, M. Abdullah, Khairurrijal, F. Iskandar, Synthesis of NiFe3-xO4 Nanoparticles by Microwave-Assisted Coprecipitation and their Application in Viscosity Reduction of Heavy Oil, Materials Science Forum


Joko Suwardy and Yudi Darma, Thermal Annealing Effects of SrTiO3 Film on Si(100), AIP Conf. Proc. 1454 (2013), pp. 112-115

H. Alfiadi, A. S. Aji, and Y. Darma, Time Dependence of Carbon Film Deposition on SnO2/Si using DC Unbalanced Magnetron Sputtering, NNS Proceeding to be published in AIP proceeding end of 2013


Asep Suhendi, Muhammad Miftahul Munir, Adi Bagus Suryamas, Asep Bayu Dani Nandiyanto, Takashi Ogi, and Kikuo Okuyama, Control of cone-jet geometry during electrospray by an electric current, Advanced Powder Technology, 24 (2013) 532

B. E. Gunara, J. Louis, P. Smyth, L. Tripodi, and R. Valandro, The rigid limit of N=2 supergravity, Classical and Quantum Gravity 30

F. T. Akbar, B. E. Gunara, Triyanta, and F. P. Zen, Bosonic Part of 4d N = 1 Supersymmetric Gauge Theory with General Couplings : Local Existence, accepted in Advances in Theoretical and Mathematical Physics, August 2013


Jessie S. Pamudji, Khairurrijal, Rachmat Mauludin, Titi Sudiati, Maria Evita, PVA-Ketoprofen Nanofibers Manufacturing Using Electrospinning Method for Dissolution Improvement of Ketoprofen, Materials Science Forum Vol. 737 (2013) pp 166-175


Muhammad Miftahul Munir, Ade Y. Nuryantini, Khairurrijal, Mikrajuddin Abdullah, Ferry Iskandar, and Kikuo Okuyama, Preparation of Polyacrylonitrile Nanofibers with Controlled Morphology Using a
Constant-Current Electrospinning System for Filter Applications, Materials Science Forum, 737 (2013) 159
Muhammad Miftahul Munir, Asep Suhendi, Takashi Ogi, Ferry Iskandar and Kikuo Okuyama, Ion-induced nucleation rate measurement in SO2/H2O/N2 gas mixture by soft X-ray ionization at various pressures and temperatures, Advanced Powder Technology, 24 (2013) 143
Suroso, A., Zen, F.P., Cosmological model with nonminimal derivative coupling of scalar fields in five dimensions, General Relativity and Gravitation 45 (4), pp. 799-809
Suwat Rakpanich, Natthakridta Chanthima, Hong Joo Kim, Mitra Djamal, Pichet Limsuwan, Jakrapong Kaewkho, Synthesis and Luminescence Properties of Sm3+ in Bismuth Borate Glass, Advanced Materials Research, Volume 770/September/ 2013 hal: 42-45
Ambran Hartono, Suparno Satira, Mitra Djamal, Ramli, Herman Bahar, Edi Sanjaya, A Magnetic Distance sensor witAdvances in Materials Physics and Chemistry High Sensitivity Based on Double Secondary Coil of Fluxgate, Advances in Materials Physics and Chemistry, Volume 3/No.1/Maret/ 2013 hal: 71-76
B. E. Gunara, Flat BPS Domain Walls of 5d N=2 Supergravity from Quaternionic 4-Manifolds, Conference on Theoretical Physics and Nonlinear Phenomena
B. E. Gunara, Regularity Of Dyonic Black Holes In Abelian 4d N=1 Supergravity, EASIAM The 2nd Conference on Industrial and Applied Mathematics


Muhammad Miftahul Munir, Sintesis Nanofiber dengan Elektrospinning dan Aplikasinya, Prosiding Seminar Nasional Material 2013


Suprijadi, F. Faizal, C.F. Naa and A.Trisnawan, 3D Simulation of Dam-break effect on a Solid Wall using Smoothed Particle Hydrodynamics, Recent Development on Computational Science, vol.4, p. 155 – 161

Nurul Ikhsan, Nakamura, M., Obata, M., Suprijadi, Oda, T., Magnetic, structural, and electronic properties of Co doped Fe/MgO interface, Recent Development on Computational Science, Vol.4, p.95-104

N. Nuraini, Widya NF, Suprijadi, Model matematika sistem pemberian nutrisi pada tanaman hidroponik NFT, Jurnal Matematika, Vol.1 (1), hal.93-103


Kimura, K., Nakatsuji, S., Nugroho, A.A., Single-crystal study on the low-temperature magnetism of the pyrochlore magnet Pr2Zr2O7, Journal of the Korean Physical Society

Capogrosso, V., Malvestuto, M., Handayani, I.P., Van Loosdrecht, P.H.M., Nugroho, A.A., Magnano, E., Parmigiani, F., Effects of charge-orbital order-disorder phenomena on the unoccupied electronic states in the single-layered half-doped Pr0.5Ca 1.5MnO4, Physical Review B - Condensed Matter and Materials Physics


Fourier Dzar Eljabbar Latief, Selly Feranie, Umar Fauzi, Digital Characterization and 3D Visualization of Crack-Type Pore Space in Geothermal Reservoir Rock Using Image Analysis, PROCEEDINGS HAGI-IAGI Joint Convention Medan 2013


Selly Feranie, Fourier Dzar Eljabbar Latief, Tortuosity–Porosity Relationship in Two-Dimensional Fractal Model of Porous Media, Fractals, Vol. 21, No. 2


Nurhandoko, B. E. B., Susilowati, Purnama, A. D., Listyobudi, M., Amplitude Various Angles (AVA) of Reflected Elastic Wave Modeling in Thin Layer CBM Reservoir: Case study of South Sumatera, Joint Convention HAGI-IAGI.
Bagus Endar B. Nurhandoko, Shale Gas Reservoir Characterization Strategy, Joint Convention HAGI-IAGI
Nurhandoko, B. E. B., AVO in Thin layer CBM, ITB Journal
Acep Purqon, The Geometrical Effects of Substitutional Impurities on Electric and Magnetic Properties of (10,0) Carbon Nanotube by using Density Functional Theory, Recent Development on Computational Science
Lilik Hendrajaya, Karakteristik Letusan Gunung Lokon, Prosiding Seminar Kontribusi Fisika
Abghy Ghifari Fa’ad dan Gunawan Handayani, Metoda Microtremor untuk eksplorasi panas bumi di Kamajang, 2nd Indonesian Student Conference On Science And Mathematics.
Pramuditya, S., Takahashi, M., “Core design study for power uprating of integral primary system PWR”, 2013, Annals of Nuclear Energy 59, pp. 16-24


Permana, S., Trian, N., Waris, A., Suud, Z., mail, I., Suzuki, M., “Irradiation and cooling process effects on material barrier analysis based on plutonium composition of LWR”, 2013, Advanced Materials Research 772 , pp. 513-518


Zaki Su’ud, Pb-Bi Cooled Fast Reactors Related Research Activities in Indonesia, Heavy Liquid Metal Coolant Technology Workshop, Obninsk, Rusia, September 30th-October 4th, 2013 (Invited)

Zaki Su’ud, Imam Taufik, H. Sekimoto, Optimization of Small Pb-Bi Cooled Modified CANDLE Burn-up Based Long Life Fast Reactors, International conference on Advances in Nuclear Science and Engineering (ICANSE) 2013, 16-19 September 2013, Aston Hotel, Denpasar, Bali, Indonesia


Zaki Su’ud and H Sekimoto, Safety Analysis of Pb-Bi Cooled 800 MWt Modified CANDLE Burn-up Scheme Based Fast Reactors, International conference on Advances in Nuclear Science and Engineering (ICANSE) 2013, 16-19 September 2013, Aston Hotel, Denpasar, Bali, Indonesia

Muh. Mandela, Zaki Su’ud and H. Sekimoto, PRELIMINARY STUDY ON START-UP PROCESS OF PB-BI COOLED MODIFIED CANDLE BURNUP BASED LONG LIFE FAST REACTORS, International conference on Advances in Nuclear Science and Engineering (ICANSE) 2013, 16-19 September 2013, Aston Hotel, Denpasar, Bali, Indonesia

Nuclear Science, Technology, and Engineering Conference 2013 (INUSTEC 2013), Kuala Lumpur, Malaysia, September 30th-October 2th, 2013


Indah Rosidah, Maryam Afifah, Zaki Su’ud, Ferhat Aziz, H. Sekimoto and Sidik Permana, The Effect of the Number of Regions and Cycle Length to the Overall Performance of Pb-Bi Cooled Modified CANDLE Burn-Up Scheme Based, International conference on Advances in Nuclear Science and Engineering (ICANSE) 2013, 16-19 September 2013, Aston Hotel, Denpasar, Bali, Indonesia

Fajar Arianto, Zaki Suud, Zuhair, Study on Neutronic of Very Small Pb – Bi Cooled No-Onsite Refueling Nuclear Power Reactor (VSPINNOR), International conference on Advances in Nuclear Science and Engineering (ICANSE) 2013, 16-19 September 2013, Aston Hotel, Denpasar, Bali, Indonesia

Syelendra Pramuditya, Minoru Takahashi, Computational Fluid Dynamic Study on Cross Flow Pressure Drop for Triangular Array Rod Assemblies with Wire, International conference on Advances in Nuclear Science and Engineering (ICANSE) 2013, 16-19 September 2013, Aston Hotel, Denpasar, Bali, Indonesia


Indarta Kuncoro Aji, Abdul Waris, Study Utilization LiF, BeF2, ThF4, and UF4 (U235 enrichment) as fuel on Molten Salt Reactor FUJI-12 (100 MWe),
International conference on Advances in Nuclear Science and Engineering (ICANSE) 2013, 16-19 September 2013, Aston Hotel, Denpasar, Bali, Indonesia


Sparisoma Viridi, Rizal Kurniadi, Abdul Waris, Novitrian, Harmonic Oscillator-Like Based Toy Model for Droplet Separation, International conference on Advances in Nuclear Science and Engineering (ICANSE) 2013, 16-19 September 2013, Aston Hotel, Denpasar, Bali, Indonesia


Deni Hardiansyah; Freddy Haryanto, Monte Carlo Simulation Using Two Beam Sources To Investigate The Sensitivity Of Dose Calculation On Prism Treatment Planning System For 6 Mev And 10 Mev Electron Beam, International conference on Advances in Nuclear Science and Engineering (ICANSE) 2013, 16-19 September 2013, Aston Hotel, Denpasar, Bali, Indonesia

Muhammad Yangki Sulaeman, Rena Widita, Nanosecond Pulsed Electric Fields (nsPEFs) Low Cost Generator Design using Power MOSFET and Cockcroft-Walton Multiplier Circuit as High Voltage DC Source, International conference on Advances in Nuclear Science and Engineering (ICANSE) 2013, 16-19 September 2013, Aston Hotel, Denpasar, Bali, Indonesia

Arinilhaq, Rena Widita, Reconstruction 3-Dimentional Image From 2-Dimentional Image Of Status Optical Coherence Tomography (OCT) For Analysis Of Changes In Retinal Thickness, International conference on Advances in Nuclear Science and Engineering (ICANSE) 2013, 16-19 September 2013, Aston Hotel, Denpasar, Bali, Indonesia

Nurul Siti Khotimah, Idam Arief, Sparisoma Viridi, Determination of Porous Membrane Selectivity using Miscible Lattice Gas, International conference on Advances in Nuclear Science and Engineering (ICANSE) 2013, 16-19 September 2013, Aston Hotel, Denpasar, Bali, Indonesia

H. Tanaka, H. Gunawan, The local trace inequality for potential type integral operators, POTA 38 : 2


H. Batkunde, H. Gunawan, Y.E.P. Pangalela, Bounded linear functionals on the \(n\)-normed space of \(p\)-summable sequences, AUMB Series Mathematics

S. Ekariani, H. Gunawan, M. Idris, A contractive mapping theorem for the \(n\)-normed space of \(p\)-summable sequences, JMA 4 : 1

R.A. Wibawa-Kusumah, H. Gunawan, Two equivalent \(n\)-norms on the space of \(p\)-summable sequence, Per. Mat. Hungar. 67 : 1
T.R. Kristianto, R.A. Wibawa-Kusumah, H. Gunawan, Equivalence relations of \( n \)-norms on a vector space, Mat. Vesnik 65 : 4
M. Idris, S. Ekariani, H. Gunawan, On the space of \( p \)-summable sequences, Mat. Vesnik 65 : 1
H. Gunawan, I. Sihwaningrum, Multilinear maximal functions and fractional integrals on generalized Morrey spaces, J. Math. Analysis
Y.E.P. Pangalela, H. Gunawan, The \( n \)-dual space of the space of \( p \)-summable sequences, Math. Bohemica
S. Ekariani, H. Gunawan, Teorema pemetaan kontraktif pada \( Lp(0,\infty) \) sebagai ruang norm-2, Prosiding Seminar Nasional Matematika & Aplikasinya
Wono Setya Budhi dan Janny Lindiarni, The Boundedness of Commutators of Generalized Fractional Integral Operators on Specific Generalized Morrey Spaces, Far East Jornal of Mathematical Science
Fatmawati, R. Saragih, Y. Soeharyadi, Reduced-order model based on H-infinity balancing for infinite-dimensional systems, Applied Mathematical Sciences, Vol. 7, pp 405-418
P. Astuti, H.K. Wimmer, Characteristic and hyperinvariant subspaces over the field \( GF(2) \), Linear Algebra and Its Applications, Volume 438, Issue 4, 15 February 2013, Pages 1551-1563


B. Rahardjo, I. Muchtadi-Alamsyah, M. Paryasto, Noise Based Stego ECC, Proceeding International Conference on Advance Science and Contemporary Engineering, Binus University, Oktober 2013

Irwansyah, A. Muchlis, I. Muchtadi-Alamsyah, D. Suprijanto, A. Barra, Construction of Weakly Self Dual Normal Basis and Its Application in Orthogonal Transform Encoding Cyclic Codes, Proceeding International Conference on Advance Science and Contemporary Engineering, Binus University, Oktober 2013

Faisal, Irawati, I. Muchtadi-Alamsyah, Auslander-Reiten Quiver of Nakayama Algebra Nn-2,n, Jurnal Matematika dan Sains Vol 18 No 1, 11-17, 2013