



## Publicaciones Realizadas 2013

*Dr. Luis F. Bejarano*

Pedraza-Saavedra, L. G., and **L. Bejarano, 2013**: *Crítica a la enseñanza de la medición del campo electromagnético en algunos libros universitarios famosos de postgrado*. Latin American and Caribbean Journal of Engineering Education, 7, No 1, LACCEL, ISSN 1935-0295.

Jury, M.R. **2013**, *Zonal gradients in the lower atmosphere and upper ocean across Puerto Rico and the windward Antilles in mid-summer 2012*, **J Appl Meteorol Clim.** **53**, 731-741.

Govender Y, Cuevas, E., Sternberg, L., **Jury, M.R. 2013** *Temporal variation in stable isotopic composition of rainfall and groundwater in a tropical dry forest in the northeastern Caribbean*, Earth Interactions, 17, 1–20.

**Jury, M.R.**, and Chiao, S, **2013**, *Representation of Ethiopian wet spells in global and nested models*, *Advances in Meteorology*. (in press).

**Jury, M.R. 2013**, *Variability in the tropical southwest Indian Ocean and influence on southern Africa climate*, Intl J Mar. Science, 3, 46-64.

**Jury, M.R. 2013**, *Environmental influences on Agulhas fish catch*, Intl J Mar. Science, 3, 79-90.

*Dr. Mark R. Jury*

**Jury, M.R. 2013**, *Turks and Caicos Islands climate and its impacts*, *Earth Interactions*, doi10.1175/2012EI000490.1.

**Jury, M.R. 2013**, *Representation of coastal upwelling and environmental interactions in the southern Benguela by satellite era reanalysis*, Intl J Mar. Science, 3, 267-277.

**Jury, M.R. 2013**, *Ethiopian highlands crop-climate prediction 1979-2009*, J. Appl. Meteorol. Climatol, 52, 1116-1126.

**Jury, M.R., 2013**, *Climate trends in southern Africa*, S. Afr. J. Science, 109, 53-63.

**Jury, M.R., 2013**, *A return to wet conditions over Africa: 1995-2010*, Theor. Appl. Climatol., 111, 471-481.

**Jury, M.R., 2013**, *Climate prediction experiences in southern Africa and key outcomes*, J. Natural Hazards, 65, 1883-1894.

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**Jury, M.R.** and Funk, C. **2013**, *Climatic trends over Ethiopia: regional signals and drivers*. Int. J. Climatol. 33, 1924-1935.

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**Jun-Qiang Lu**, Jonathan Gonzalez, Carlos Sierra, Yang Li. *Nanoscale capacitance: a classical charge-dipole approximation*. AIP Advances 3, 102104, **2013**.

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Daniel Valencia, **Jun-Qiang Lu**, Jian Wu, Feng Liu, Fang Zhai, Yong-jin Jiang. *Electronic transmission in Graphene suppressed by interlayer interference*. AIP Advances 3, 102125, **2013**.

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L. Wang, G. Luo, D. Valencia, C. Sierra, R.F. Sabirianov, J. Lu, **J.Q. Lu**, W.N. Mei, C.L. Cheung. *Electronic Structures and Properties of Lanthanide Hexaboride Nanowires*. J. App. Phys. 114, 143709, **2013**.

*Dr. Sergiy Lysenko*

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Thomas D. Ditto, **Sergiy Lysenko**, Melissa Crenshaw, *"Holographic spectrograph for space telescope"*, in *Techniques and Instrumentation for Detection of Exoplanets VI*, Stuart Shaklan, Editors, Proceedings of SPIE Vol. 8864 (SPIE, Bellingham, WA **2013**), 88641T.

*Dr. Sergiy Lysenko,  
Dr. Félix E. Fernández,  
Dr. Armando Rúa*

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CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Apr 2012. 34 pp.  
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*Dr. Sudhir Malik*

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*Studies of jet quenching using isolated-photon+jet correlations in PbPb and pppp collisions at  $s\sqrt{NN}=2.76$  TeV*

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*Search for new physics in events with opposite-sign leptons, jets, and missing transverse energy in pppp collisions at  $s\sqrt{s}=7$  TeV*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Jun 2012. 26 pp.  
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*Measurement of Leptonic Asymmetries and Top Quark Polarization  
in  $t\bar{t}$  Production*

D0 Collaboration (Victor Mukhamedovich Abazov (Dubna, JINR) *et al.*). Jul 2012. 8 pp.

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D0 Collaboration (V.M. Abazov (Dubna, JINR) *et al.*). Jul 5, 2012. 7 pp.

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*Search for a  $W'$  boson decaying to a bottom quark and a top quark  
in  $pppp$  collisions at  $s\sqrt{=7s=7 TeV}$*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Aug 2012. 33 pp.

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*Search for flavor changing neutral currents in top quark decays in  $pp$  collisions at 7 TeV*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Aug 2012. 29 pp.

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*Measurement of the azimuthal anisotropy of neutral pions in  $PbPb$  collisions  
at  $s\sqrt{=2.76s=2.76 TeV}$*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Aug 2012. 15 pp.

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*Measurement of the ratio of three-jet to two-jet cross sections in  $pp$  collisions  
at  $s\sqrt{=1.96s=1.96 TeV}$*

D0 Collaboration (Victor Mukhamedovich Abazov (Dubna, JINR) *et al.*). Sep 2012. 7 pp.

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CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Sep 2012. 16 pp.

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CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Sep 2012. 31 pp.

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*Measurement of the  $pp \rightarrow W+b+X$  and  $pp \rightarrow W+b+X$  production cross section at  $s\sqrt{=1.96s=1.96}$  TeV*

D0 Collaboration (V.M. Abazov (Dubna, JINR) *et al.*). Oct 2012. 8 pp.

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*Search for anomalous production of highly boosted  $ZZ$  bosons decaying to  $\mu+\mu-\mu+\mu-$  in proton-proton collisions at  $s\sqrt{=7s=7}$  TeV*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Oct 2012. 20 pp.

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*Search for supersymmetry in events with photons and low missing transverse energy in  $pppp$  collisions at  $s\sqrt{=7s=7}$  TeV*

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*Search for narrow resonances and quantum black holes in inclusive and bb-tagged dijet mass spectra from pppp collisions at  $s\sqrt{=7s=7}$  TeV*  
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 Published in Phys.Lett. B720 (2013) 309-329

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*Measurement of the differential photon + cc-jet cross section and the ratio of differential photon+ cc and photon+ bb cross sections in proton-antiproton collisions at  $s\sqrt{=1.96s=1.96}$  TeV*  
 D0 Collaboration (Victor Mukhamedovich Abazov (Dubna, JINR) *et al.*). Oct 2012. 8 pp.  
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 CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Oct 2012.  
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CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Oct 2012. 23 pp.

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CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Oct 2012. 39 pp.

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*Search for supersymmetry in final states with a single lepton, bb-quark jets, and missing transverse energy in proton-proton collisions at  $s\sqrt{=7s=7}$  TeV*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Nov 2012. 28 pp.

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CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Nov 2012. 18 pp.

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CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Nov 2012. 69 pp.

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CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Nov 2012. 49 pp.

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CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Nov 2012. 29 pp.

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D0 Collaboration (V.M. Abazov (Dubna, JINR) *et al.*). Nov 2012. 14 pp.

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*Inclusive search for supersymmetry using the razor variables in pppp collisions at  $s\sqrt{=7s=7}$  TeV*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Dec 2012. 17 pp.  
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CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Dec 2012. 29 pp.  
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CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Jan 2013. 21 pp.

Published in Phys.Rev. D87 (2013) no.7, 072001

*Search for Higgs boson production in oppositely charged dilepton and missing energy final states in  $9.7\text{ fb}^{-1}$  of  $pp^-pp^-$  collisions at  $s\sqrt{=1.96s=1.96}$  TeV*

D0 Collaboration (Victor Mukhamedovich Abazov (Dubna, JINR) *et al.*). Jan 2013. 24 pp.

Published in Phys.Rev. D88 (2013) no.5, 052006

*Event shapes and azimuthal correlations in ZZ + jets events in pppp collisions at  $s\sqrt{=7s=7}$  TeV*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Jan 2013. 33 pp.

Published in Phys.Lett. B722 (2013) 238-261

*Interpretation of Searches for Supersymmetry with simplified Models*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Jan 2013. 24 pp.

Published in Phys.Rev. D88 (2013) no.5, 052017

*Measurement of the ratio of differential cross sections  $\sigma(pp^- \rightarrow Z+bjet)/\sigma(pp^- \rightarrow Z+jet)\sigma(pp^- \rightarrow Z+bjet)/\sigma(pp^- \rightarrow Z+jet)$  in  $pp^-pp^-$  collisions at  $(\sqrt{s})=1.96(s)=1.96$  TeV*

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*Search for physics beyond the standard model in events with  $\tau\tau$  leptons, jets, and large transverse momentum imbalance in  $pp$  collisions at  $s\sqrt{s} = 7$  TeV*  
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 D0 Collaboration (Victor Mukhamedovich Abazov (Dubna, JINR) *et al.*). Jan 18, 2013. 12 pp.  
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*Measurement of the differential cross sections for isolated direct photon pair production in  $pp^+pp^-$  collisions at  $s\sqrt{s}=1.96s=1.96$  TeV*  
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*Measurement of  $W^+W^-$  and  $ZZ$  production cross sections in  $pp$  collisions at  $\text{sqrt}(s) = 8$  TeV*  
 CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Jan 20, 2013. 29 pp.  
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*Search for contact interactions using the inclusive jet  $p_T p_T$  spectrum in  $pppp$  collisions at  $s\sqrt{s}=7s=7$  TeV*  
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*Search for a Higgs boson in diphoton final states with the D0 detector in  $9.6\text{ fb}^{-1}$  of  $pp^+pp^-$  collisions at  $s\sqrt{s}=1.96s=1.96$  TeV*  
 D0 Collaboration (Victor Mukhamedovich Abazov (Dubna, JINR) *et al.*). Jan 22, 2013. 16 pp.  
 Published in Phys.Rev. D88 (2013) no.5, 052007

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*Measurement of the top-antitop production cross section in the tau+jets channel in  $pp$  collisions at  $\text{sqrt}(s) = 7$  TeV*  
 CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Jan 24, 2013. 25 pp.  
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*Search for the standard model Higgs boson in  $lv\bar{l}v + jets$  final states in  $9.7 fb^{-1}$  of  $pp^+pp^-$  collisions with the D0 detector*

D0 Collaboration (Victor Mukhamedovich Abazov (Dubna, JINR) *et al.*). Jan 25, 2013. 26 pp.

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*Measurement of the  $t\bar{t}t\bar{t}$  production cross section in the all-jet final state in  $pp$  collisions at  $s\sqrt{s} = 7 TeV$*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Feb 3, 2013. 29 pp.

Published in JHEP 1305 (2013) 065

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*Search for pair-produced dijet resonances in four-jet final states in  $pp$  collisions at  $s\sqrt{s} = 7 TeV$*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Feb 3, 2013. 15 pp.

Published in Phys.Rev.Lett. 110 (2013) no.14, 141802

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*Searches for Higgs bosons in  $pp$  collisions at  $\sqrt{s} = 7$  and  $8 TeV$  in the context of four-generation and fermiophobic models*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Feb 7, 2013. 24 pp.

Published in Phys.Lett. B725 (2013) 36-59

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*Study of the underlying event at forward rapidity in  $pp$  collisions at  $s\sqrt{s} = 0.9, 2.76,$  and  $7 TeV$*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Feb 10, 2013. 31 pp.

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*Search for new physics in final states with a lepton and missing transverse energy in  $pp$  collisions at the LHC*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Feb 12, 2013. 17 pp.

Published in Phys.Rev. D87 (2013) no.7, 072005

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*Search for a Higgs boson decaying into a  $b$ -quark pair and produced in association with  $b$  quarks in proton-proton collisions at  $7 TeV$*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Feb 12, 2013. 26 pp.

Published in Phys.Lett. B722 (2013) 207-232

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*Measurement of the X(3872) production cross section via decays to J/psi pi pi in pp collisions at sqrt(s) = 7 TeV*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Feb 16, 2013.

33 pp.

Published in JHEP 1304 (2013) 154

*Search for narrow resonances using the dijet mass spectrum in pp collisions at sqrt(s)=8 TeV*

CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Feb 19, 2013.

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Published in Phys.Rev. D87 (2013) no.11, 114015

*Search for Higgs boson production in trilepton and like-charge electron-muon final states with the D0 detector*

D0 Collaboration (Victor Mukhamedovich Abazov (Dubna, JINR) *et al.*). Feb 22, 2013. 14 pp.

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D0 Collaboration (Victor Mukhamedovich Abazov (Dubna, JINR) *et al.*). Feb 26, 2013. 29 pp.

Published in Phys.Rev. D88 (2013) no.9, 092001

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CMS Collaboration (Serguei Chatrchyan (Yerevan Phys. Inst.) *et al.*). Mar 4, 2013. 44 pp.

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D0 Collaboration (Victor Mukhamedovich Abazov (Dubna, JINR) *et al.*). Mar 4, 2013. 17 pp.

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*Search for supersymmetry in hadronic final states with missing transverse energy using the variables alphaTaT and b-quark multiplicity in pp collisions at sqrt(s)=8s=8 TeV*

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