

Amr Mohamed Khairat Radi (C.V.)

(<https://www.scopus.com/authid/detail.uri?authorId=15756207600>),

Publications: 471, H-Index: 93, Citations :38,806 (13/3/2022)



Personal details

Permanent Address 31 Gladstone Road, Spark hill, B11 1LP,
Birmingham, UK

Family I am married and I have two sons and one
daughter

Date of birth 2/11/1965

Nationality British / Egyptian

Email address amr.radi@cern.ch or amr.radi@bue.edu.eg

Tel. no. + 968 91780671 + 20 1001436582

Qualifications

11/95 – 6/00 **Ph.D. in Computer Science (computational physics)**
Birmingham *Thesis: Discovery of Neural network learning rules using*
University, UK *genetic programming.*

1999 Training **Microsoft Certified System Engineering** 1999 including
centre Networking essentials; NT workstation 4.0, NT server (core)
Birmingham, UK 4.0, NT Server (enterprise) 4.0, TCP/IP 4.0 and proxy Server
2.0.
Microsoft Certified Professional 1999 NT Workstation 4.0,
NT Server (core) 4.0, NT Server (enterprise) 4.0, TCP/IP 4.0
and Proxy Server 2.0.

10/99 - 7/00 Certification in Further and Adult Education Teachers.
Matthew Boulton Competences in Training and Development.
College,UK
Birmingham

10/90 - 6/93 Ain **Master in Physics**
Shams University, **Thesis: “Applications of Some Electronic Techniques in Two-**
Cairo, Egypt **Dimensional Image Processing (Optical Characters Recognition)”.**

1990 **Novell Administration** Official training course for
Novell Training implementing Novell 3.1 Client/Server Model over IPX/SPX
Centre network protocol

1988 – 1989 **Post graduate Diploma** in electronics October 1988 with grade
Electronics “Excellent”
College, Cairo
Egypt

10/83-5/87 **B.Sc.(Hon.) in Physics with overall grades “Excellent”** (2i
Ain Shams equivalent).
University

Academic Experience

9/2015 –	Associate Professor in Sultan Qaboos University, Oman
6/2013 – 9/2014	Professor in Computational Physics, Ain Shams University , Egypt
10/2009 to 6/2013 Ain Shams University	Senior Lecturer Teaching fundamental physics, statistical, artificial intelligent techniques, modeling techniques, simulation methods, analog/digital electronic and industrial electronics, information technology, networking/data communications,
10/2007 to 9/2009 Akhbar El-Yom Academy,Egypt	Head of computer science department Teaching information technology, digital design, networking/data communications, Neural networks, image possessing, modeling techniques and simulation methods.
11/2004 to 9/2007 Ain Shams University	Lecturer Teaching fundamental physics, statistical, analog/digital electronic, networking/data communications, artificial intelligent techniques, modeling techniques and simulation methods.
9/2002 to 08/2004 Aston Business, School, Aston University, UK	Research Assistant (part time) Human computer interactions (Two projects; the first involves content analysis and usability testing of corporate web sites and the second relates to online assessment)
10/00 to 8/02 Ain Shams University	Lecturer in Physics Department Teaching Physics and electronics (physics, Information Technology, data communications, networks, etc.)
10/1995 to 6/2000 Birmingham University,UK	Computer Science Instructor Teaching artificial intelligence language to first year students, guiding them in setting tasks and maintenance of hardware.
5/2000-7/2000 City College, Birmingham,UK	Lecturer Teaching Information technology.
10/1987-9/1995 Ain Shams University	Assistant Lecturer in Physics Teaching experience in the following subjects: • Physics fundamentals, Advanced electronic circuits, digital electronics and Microprocessor at postgraduate level

Professional experience

4/2012- to date	Team leader in CMS experiments in CERN (The Large Hadron Collider)
3/2011- 3/2012	Depute team leader in CMS experiments in CERN
6/2010-	Member in CMS experiments in CERN
9/2002 – PRIMES UK	Information Technology Consultant (part time) (Information technology, modeling techniques, simulation methods Network, system security, etc.)
7/1997- UNI-techniques, Birmingham	Network Consultant The company lead to critical design and configuration decisions to fulfil their daily needs of building, installation, networking and configuring the PC's successfully installed and running. 1) I was responsible for investigating and fixing faults in computer and computer related equipment, this includes, monitors, printer: and computers 2) Configuration and implementation of different networks using windows 2000 Server operating system, including installation of servers, 802 Ethernet, including network wiring, tips, hubs switching and security.
1992-1995 UNESCO	Part time consultant with United Nations Education, Scientific and Cultural Organization (UNESCO) Working to design and implement the software/hardware interface between Physics experiments and PC's
1988 – 1994, Delta Computer Co., Cairo, Egypt	Network Consultant Planning and implementing of multi-domain corporate networks for the following: Novel, IONET, Mac, etc.

Professional membership

- ISGEC International Society for Genetic and Computational Evaluation
- Program committee member: Genetic and Evolutionary Computation Conference (GECCO'99, GECCO'2000, GECCO'2001, GECCO'2002 and GECCO'2003).
- Egyptian network of high energy physics since 2008.
- CMS experiment in CERN (Large Hadron Collider) since 2010.

Key Skills

I have developed the following skills during my academic and professional experience:

- Developing checklists and organising tasks for usability testing
- Content analysis of corporate websites
- Developing programming using Basic, Virtual Basic, Fortran, C++, C#, Matlab, Labview and POP11.
- Teaching to both undergraduate and postgraduate students.
- Developing teaching material of a number of modules.
- Supervision of Honours, MSc and Ph.D. dissertations
- Setting and marking examination papers
- Mentoring students
- Participating in the administrative tasks
- Delivering research papers at seminars and International conferences.

Teaching Experience

I have more than twenty four years experience in teaching at undergraduate and postgraduate levels in Ain sham University, as well as, others Universities.

My Job duties involved in

- 1- Designing and Teaching a number of undergraduate and postgraduate modules
- 2- Lecturing to large classes and small workshops.
- 3- Assessing student work objectively. This involved the following:
 - Writing exam papers and marking exams.
- 4- Supervising both undergraduate projects and postgraduate dissertations
- 5- Undertaking personal and collaborative research and other scholarly activities.
- 6- Participating in the administrative tasks. Such as:
 - Representing the school in various committees
 - Mentoring students
 - Perspective student interviewing and student selection.
 - Assisting in the administration of courses and contributing to the preparation of information for course committees, annual reviews and examination boards.

Taught Courses:

- General Physics, Physics II, Computational Physics, and Mathematical Methods for Scientists, Modelling and Simulation, Numerical Computing Techniques, Networks, Data communications, Computer security, Industrial Electronics; Electronic (analogy/digital).
- Concepts of Programming Languages; Introduction to Computer, Fundamental to Computer Programming; Digital Image Processing; Neural Networks; Evolutionary Computation Methods, Computer Architecture;

Graduate Supervisions

I have supervised seventeen Master's thesis and five PhD thesis (in deferent areas as computational physics, high energy physics, optics, nuclear physics, biophysics and electronic).

Research

Key points: Physics, Computational Physics, Electronic and Computer Sciences.

My main research interests lie in the areas of computational physics. My research effort focuses on using the tools of computational physics to understand physics phenomena. The goal of my research is to understand particle physics via a combination of analytical theory and simulations/modeling. My group carries out numerical simulations/modeling on high-performance computer (Grid). In addition to, digital electronics as FPGA and microcontroller.

Projects Involved and Main Responsibility

- 1- The FP7 project that includes Ain Shams University, Cairo University, Helwan University, Bari University (Italy) and École Polytechnique (France). I am principle investigator (IP) for Ain Shams University (300 KEuros)
 - **Full Title:** “Europe Egypt Network for Particle Physics”
 - **Acronym:** “EENP2”
 - **Proposal Number:** 318922
 - **Scientific Panel:** Physics
 - **Grant Agreement Number:** PIRSES-GA-2012-318922
 - **Duration of the project:** months 48
 - **Project start date:** 01-January -2013
- 2- Compact Muon Solenoid (CMS) Egyptian Team Leader (150 kEuros per year)

Publications

(I have one in Science 338 (2012) 1569-1575 and one in Nature Physics 10(2014) 557-560) <https://www.scopus.com/authid/detail.uri?authorId=15756207600>,
Publications: 471, H-Index: 93, Citations :38,806 (2022)

Books, Publications and Conference Papers

Books

- 1- Amr Radi and Riccardo Poli, “**Discovering Efficient Learning Rules for Feedforward Neural Networks using Genetic Programming**” In Ajith Abraham and Lakhmi Jain, editors, Innovations in Intelligent Systems, chapter 7. Springer Verlag, June 2002.
- 2- El-Sayed A. El-Dahshan, Aboul Ella Hassanien, Amr Radi, Soumya Banerjee “**Ultrasound Biomicroscopy Glaucoma Images Analysis Based on Rough Set and Pulse Coupled Neural Network**” Foundations of Computational Intelligence, Springer Verlag, (2) : 275-293, 2009.
- 3- Amr Radi and Samy K. Hindawi “**Applying Artificial Neural Network Hadron - Hadron Collisions at LHC**”, Artificial Neural Networks - Architectures and Applications, Prof. Kenji Suzuki (Ed.), ISBN: 978-953-51-0935-8, (2013). InTech, DOI: 10.5772/51273. Available from: <http://www.intechopen.com/books/artificial-neural-networks-architectures-and-applications/applying-artificial-neural-network-hadron-hadron-collisions-at-lhc>

Journal Papers

- 1- “Application of fringes of equal chromatic order for investigating the effect of temperature on optical parameters of a GRIN optical fibre”, Journal of Optics A: pure and applied optics, Institute of Physics Publishing, page 174-179, February 2002 (with M Medhat, S Y El-Zaiat, & M F Omar).

- 2- "Interferometric determination of gamma radiation effects on optical parameters of a GRIN optical fibre", Journal of Optics A: pure and applied optics, Institute of Physics Publishing, page 485-490, July 2002 (with M Medhat, S Y El-Zaiat, Saleh M Abdou & M F Omar).
- 3- "Prediction of Non Linear system in Optics Using Genetic Programming" International Journal of Modern Physics C, vol.18, No.3, pp 369-374, (2007), Amr Radi.
- 4- "Programming approach for electron-alkali-metal atom collisions", International Journal of Modern Physics B, vol.20, No.32 (2006), S. El Bakry and A. Radi.
- 5 "Discovered function for positron collisions with alkali-metal atoms using genetic programming" International Journal of Modern Physics C , vol.18, No.3, pp 351-358, (2007), S. El Bakry, Amr Radi.
- 6- "Genetic programming for Hadronic interactions at high energies" International Journal of Modern Physics C , vol.18, No.3, pp 329-334, (2007), M. Elbakry and A Radi.
- 7- "Factors affecting optical dispersion in borate glass systems" Journal of Physics and Chemistry of Solids 68 (2007) 1457-1470, Manal Abdel-Baki, F.A. Abdel-Wahab, Amr Radi and Fouad El-Diasty.
- 8- "Genetic Programming for Modeling a Nonlinear Optical System" Egyptian journal of solids, (2007), Amr Radi and S. K. Hindawi.
- 9- "Development and verification of computed tomography based finite element model for the L5 vertebral body" Journal of Biophysics and Biomedical Sciences, Volume:1 Number:2 ,2008
- 10- "Genetic Programming approach for flow of steady state fluid between two eccentric spheres" , Appl. Rheol. 17:6 (2007) 68210-68215, Mostafa Elbakry and Amr Radi.
- 11- "Representation for Dispersion Formula of Optical Fiber Using Hybrid Technique" INTERNATIONAL JOURNAL OF MODERN PHYSICS C , vol.19, No.2, (2008), A Radi.
- 12- "Artificial Neural Network and Genetic Algorithm Hybrid Technique for Nucleus-Nucleus Collisions", Int. J. Mod. Phys. C, Volume 19, Issue 12, pp. 1787-1795 (2008).EL-Sayed, El-dahshan, Amr Radi and Mahmoud. Y. El-Bakry.
- 12- "Artificial Neural Network Modeling in Heavy Ion ", International Journal of Pure and Applied Physics, 2009. EL-Sayed, El-dahshan, Amr Radi and Mahmoud. Y. El-Bakry.
- 13- Genetic Programing Modeling For Nucleus–Nucleus Collisions / El-Sayed El-Dahshan, Amr Radi, and Mahmoud Y. El-Bakry, Int. J. Mod. Phys. C 20, 1817 (2009).
- 14- "Topological Cross Sections and Multiplicity Distributions for p n and p n Interactions at High Energies", Moaaz A. Moussa, Mahmoud Y. El-Bakry, A. Radi, El-Sayed A. El-Dahshan, D.M. Habashy, Ehab G. Abbas, International Journal of Scientific and Engineering Research Vol. 3, Issue 10, October, (2012)
- 15- "Multiplicity distributions for p n and p n interactions at high energies", Mahmoud Y. El-Bakry, Moaaz A. Moussa, A. Radi, El-Sayed A. El-Dahshan, D.M. Habashy, Ehab G. Abbas,, International Journal of Engineering and Science Vol. 1, Issue 2, September, (2012).
- 16- "Artificial Neural Network Modeling in Hadrons Collisions", Moaaz A. Moussa, Mahmoud Y. El-Bakry, A. Radi, E. El-Dahshan, M. Tantawy,, International Journal of Scientific and Engineering Research Vol. 3, Issue 8, August, (2012).
- 17- "Genetic Programming Model for Hadronic Collisions", Mahmoud Y. El-Bakry, Moaaz A. Moussa, A. Radi, E. El-Dahshan, M. Tantawy, International Journal of Scientific and Engineering Research Vol. 3, Issue 8, August, (2012).
- 18-Missing transverse energy performance of the CMS detector / A. Radi et al. (CMS Collaboration), *J. Instrum.* 6 (2011) P09001.

- 19-Determination of Jet Energy Calibration and Transverse Momentum Resolution in CMS /A. Radi et al. (CMS Collaboration), *J. Instrum.* 6 (2011) P11002
- 20-Search for New Physics with a Monojet and Missing Transverse Energy in pp Collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 107 (2011) 201804.
- 21-Dependence on pseudorapidity and on centrality of charged hadron production in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 08 (2011) 141.
- 22-Search for Resonances in the Dijet Mass Spectrum from 7 TeV pp Collisions at CMS / (A. Radi et al. (CMS Collaboration), *Phys. Lett. B* 704 (2011) 123-142.
- 23-Search for Supersymmetry at the LHC in Events with Jets and Missing Transverse Energy / A. Radi et al. (CMS Collaboration)
Published in : *Phys. Rev. Lett.* 107 (2011) 221804.
- 24-Search for $B^0 \rightarrow \mu^+ \mu^-$ and $B^0 \rightarrow \mu^+ \mu^-$ decays in pp collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 107 (2011) 191802.
- 25-Measurement of the Differential Cross Section for Isolated Prompt Photon Production in pp Collisions at 7 TeV / A. Radi et al. (CMS Collaboration), *Phys. Rev. D* 84 (2011) 052011.
- 26-Measurement of the Drell-Yan Cross Section in pp Collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 10 (2011) 007 PDF.
- 27- Measurement of the weak mixing angle with the Drell-Yan process in proton-proton collisions at the LHC / A. Radi et al. (CMS Collaboration), *Phys. Rev. D* 84 (2011) 112002.
- 28-Study of Z boson production in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 106 (2011) 212301.
- 29-Forward Energy Flow, Central Charged-Particle Multiplicities, and Pseudorapidity Gaps in W and Z Boson Events from pp Collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Eur. Phys. J. C* 72 (2012) 1839.
- 30-Study of high- p_T charged particle suppression in PbPb compared to pp collisions at $\sqrt{s_{NN}} = 2.76$ TeV / A. Radi et al. (CMS Collaboration), *Eur. Phys. J. C* 72 (2012) 1945.
- 31-Centrality dependence of dihadron correlations and azimuthal anisotropy harmonics in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV / A. Radi et al. (CMS Collaboration), *Eur. Phys. J. C* 72 (2012) 2012.
- 32-Jet Production Rates in Association with W and Z Bosons in pp Collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 01 (2012) 010.
- 33-Exclusive $\gamma\gamma \rightarrow \mu^+ \mu^-$ production in proton-proton collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 01 (2012) 052.
- 34-Measurement of the Production Cross Section for Pairs of Isolated Photons in pp collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 01 (2012) 133.
- 35- J/ψ and $\psi(2S)$ production in pp collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 02 (2012) 011.

- 36-Search for the standard model Higgs boson in the $H \rightarrow ZZ \rightarrow 2l2\nu$ channel in pp collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), J. High Energy Phys. 03 (2012) 040.
- 37-Search for the standard model Higgs boson in the $H \rightarrow ZZ \rightarrow l+l-\tau+\tau-$ decay channel in pp collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), J. High Energy Phys. 03 (2012) 081.
- 38-Search for $B0s \rightarrow \mu+\mu-$ and $B0 \rightarrow \mu+\mu-$ decays / A. Radi et al. (CMS Collaboration), J. High Energy Phys. 04 (2012) 033.
- 39-Search for a Higgs boson in the decay channel $H \rightarrow ZZ(*) \rightarrow qq^-l-l+$ in pp collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), J. High Energy Phys. 04 (2012) 036.
- 40-Search for microscopic black holes in pp collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), J. High Energy Phys. 04 (2012) 061.
- 41-Inclusive b-jet production in pp collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), J. High Energy Phys. 04 (2012) 084.
- 42-Search for quark compositeness in dijet angular distributions from pp collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), J. High Energy Phys. 05 (2012) 055.
- 43-Suppression of non-prompt $J\psi$, prompt $J\psi$, and $Y(1S)$ in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV / A. Radi et al. (CMS Collaboration), J. High Energy Phys. 05 (2012) 063.
- 44-Measurement of the charge asymmetry in top-quark pair production in proton-proton collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), Phys. Lett. B 709 (2012) 28-49.
- 45-Combined results of searches for the standard model Higgs boson in pp collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), Phys. Lett. B 710 (2012) 26-48.
- 46-Search for the standard model Higgs boson decaying to $W+W-$ in the fully leptonic final state in pp collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), Phys. Lett. B 710 (2012) 91-113.
- 47-Measurement of isolated photon production in pp and PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV / A. Radi et al. (A. Radi et al. (CMS Collaboration)), Phys. Lett. B 710 (2012) 256-277.
- 48-Search for the standard model Higgs boson decaying to bottom quarks in pp collisions at $\sqrt{s_{NN}} = 7$ TeV / A. Radi et al. (CMS Collaboration), Phys. Lett. B 710 (2012) 284-306.
- 49-Search for the standard model Higgs boson decaying into two photons in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), Phys. Lett. B 710 (2012) 403-425.
- 50-Search for large extra dimensions in dimuon and dielectron events in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), Phys. Lett. B 711 (2012) 15-34.
- 51-Jet momentum dependence of jet quenching in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV / A. Radi et al. (CMS Collaboration), Phys. Lett. B 712 (2012) 176-197.
- 52-Search for neutral Higgs bosons decaying to tau pairs in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), Phys. Lett. B 713 (2012) 68-90.
- 53-Search for heavy long-lived charged particles in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), Phys. Lett. B 713 (2012) 408-433.
- 54-Measurement of the Rapidity and Transverse Momentum Distributions of Z Bosons in pp Collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), Phys. Rev. D 85 (2012) 032002.
- 55-Search for signatures of extra dimensions in the diphoton mass spectrum at the Large Hadron Collider / A. Radi et al. (CMS Collaboration), Phys. Rev. Lett. 108 (2012) 111801.

- 56-Search for the standard model Higgs boson in the decay channel $H \rightarrow ZZ \rightarrow 4l$ in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 108 (2012) 111804.
- 57-Observation of a New Ξb Baryon / A. Radi et al. MS Collaboration, *Phys. Rev. Lett.* 108 (2012) 252002.
- 58-Search for Dark Matter and Large Extra Dimensions in pp Collisions Yielding a Photon and Missing Transverse Energy / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 108 (2012) 261803.
- 59-Performance of τ -lepton reconstruction and identification in CMS / A. Radi et al. (CMS Collaboration) , *J. Instrum.* 7 (2012) P01001.
- 60-Measurement of the inclusive production cross sections for forward jets and for dijet events with one forward and one central jet in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration) , : *J. High Energy Phys.* 06 (2012) 036
- 61-Measurement of the cross section for production of $b \bar{b} X$, decaying to muons in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. CMS, *J. High Energy Phys.* 06 (2012) 110.
- 62-Search for anomalous production of multilepton events in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration) , *J. High Energy Phys.* 06 (2012) 169.
- 63-Search for leptonic decays of W' bosons in pp collisions at $\sqrt{s} = 7$ TeV/ A. Radi et al. (CMS Collaboration), : *J. High Energy Phys.* 08 (2012) 023.
- 64-Search for physics beyond the standard model in events with a Z boson, jets, and missing transverse energy in pp collisions at $\sqrt{s} = 7$ TeV/ A. Radi et al. (CMS Collaboration), *Phys. Lett. B* 716 (2012) 260-284.
- 65-Shape, transverse size, and charged hadron multiplicity of jets in pp collisions at $\sqrt{s} = 7$ TeV/ A. Radi et al. (CMS Collaboration), : *J. High Energy Phys.* 06 (2012) 160.
- 66-Measurement of the mass difference between top and antitop quarks / A. Radi et al. (CMS Collaboration), : *J. High Energy Phys.* 06 (2012) 109.
- 67-Azimuthal anisotropy of charged particles at high transverse momenta in PbPb collisions at $\sqrt{s} = 2.76$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 109 (2012) 022301.
- 68-Measurement of the $Z/\gamma^* + b$ -jet cross section in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 06 (2012) 126.
- 69-Measurement of the underlying event in the Drell-Yan process in proton-proton collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Eur. Phys. J. C* 72 (2012) 2080.
- 70-Search for heavy bottom-like quarks in 4.9 inverse femtobarns of pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 05 (2012) 123.
- 71-Search for Dark Matter and Large Extra Dimensions in pp Collisions Yielding a Photon and Missing Transverse Energy / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 108 (2012) 261803.
- 72-Measurement of the top quark pair production cross section in pp collisions at $\sqrt{s} = 7$ TeV in dilepton final states containing a τ / A. Radi et al. (CMS Collaboration), : *Phys. Rev. D* 85 (2012) 112007.
- 73-Search for heavy, top-like quark pair production in the dilepton final state in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Lett. B* 716 (2012) 103-121.
- 74-Search for pair production of first- and second-generation scalar leptoquarks in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Rev. D* 86 (2012) 052013.
- 75-Search for heavy Majorana neutrinos in $\mu^\pm \mu^\pm + \text{jets}$ and $e^\pm e^\pm + \text{jets}$ events in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Lett. B* 717 (2012) 109-128.

- 76-Measurement of the underlying event activity in pp collisions at $\sqrt{s} = 0.9$ and 7 TeV with the novel jet-area/median approach / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 08 (2012) 130.
- 77-Search for supersymmetry in hadronic final states using M T2 in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 10 (2012) 018.
- 78-Search for new physics in the multijet and missing transverse momentum final state in proton-proton collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 109 (2012) 171803.
- 79-Search for a fermiophobic Higgs boson in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 09 (2012) 111.
- 80-Inclusive and differential measurements of the $t\bar{t}$ charge asymmetry in proton-proton collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Lett. B* 717 (2012) 129-150.
- 81-Search for stopped long-lived particles produced in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 08 (2012) 026.
- 82-Search for a light pseudoscalar Higgs boson in the dimuon decay channel in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 109 (2012) 121801.
- 83-Search for charge-asymmetric production of W' bosons in top pair + jet events from pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. Instrum.* 7 (2012) P10002.
- 84-Search for charge-asymmetric production of W' bosons in top pair + jet events from pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Lett. B* 717 (2012) 351–370.
- 85-Measurement of the electron charge asymmetry in inclusive W production in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 109 (2012) 111806.
- 86-Search for high mass resonances decaying into τ -lepton pairs in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Lett. B* 716 (2012) 82-102.
- 87-Search for narrow resonances in dilepton mass spectra in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Lett. B* 714 (2012) 158-179.
- 88-Search for a W' or Techni-p Decaying into WZ in pp Collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 109 (2012) 141801.
- 89-Study of W boson production in PbPb and pp collisions at $\sqrt{s} = 2.76$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Lett. B* 715 (2012) 66-87.
- 90-Search for new physics with same-sign isolated dilepton events with jets and missing transverse energy / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 109 (2012) 071803.
- 91-Measurement of jet fragmentation into charged particles in pp and PbPb collisions at $\sqrt{s} = 2.76$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 10 (2012) 087.
- 92-Search for a light charged Higgs boson in top quark decays in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 07 (2012) 143.
- 93-Search for new physics in events with same-sign dileptons and b-tagged jets in pp collisions at $\sqrt{s} = 7$ TeV / A. Radi et al. (CMS Collaboration), *J. High Energy Phys.* 08 (2012) 110.
- 94-Measurement of the pseudorapidity and centrality dependence of the transverse energy density in PbPb collisions at $\sqrt{s} = 2.76$ TeV / A. Radi et al. (CMS Collaboration), *Phys. Rev. Lett.* 109 (2012) 152303.
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