



## Curriculum vitae

**Name:**

Dr Dimitrije Maletić

**Date and place of birth:**

21. 02. 1976. in Vukovar, republic of Croatia.

**Education:**

- 2003. BSc, Faculty of Physics, University of Belgrade: “Temperature calibration of sensors for control system of CMS ECAL detector”
- 2006. MSc, , Faculty of Physics, University of Belgrade:“*Monte Carlo simulation of CMS ECAL Preshower detector and comparison with experimental results*”
- 2009. PhD Faculty of Physics, University of Belgrade, CERN Thesis: “*Some aspetcts of background reduction of (Standard Model) Higgs decay channel to two gammas on CMS detector*”

**Positions:**

- 25.09.2006. Research Associate, Institute of nuclear sciences, in Vinča, Belgrade.
- 28.12.2009. Scientific Associate, Institute of nuclear sciences, in Vinča, Belgrade.
- 2014 in process, Higher Scientific Associate, Institute of Physics, Belgrade.

**Employment:**

- 01.05.2004. employed in Elementary Particles Physics Group in the Laboratory for Physics (010), Institute of nuclear sciences, Vinča, Belgrade.
- Од 01.05.2010. employed in the Low Background Laboratory for Nuclar Physics in the Institute of Physics, Belgrade.

## **Scientific activity**

Scientific activity were close connected to activities on CMS experiment at CERN (2003-2009), and now are close connected to activities in Low Background laboratory for Nuclear Physics (2010-), in parallel to activity at SHINE collaboration at CERN (2011-2013).

### **Activities in CMS**

Activities on pi-zero/gamma separation as pi-zeros are background to Higgs decay to two gammas. Also, work on Preshower (Geant4) simulation, development of experimental software, work on data transfer/bookkeeping (ORACLE DB) from/to CERN, CMS to CMS Tier1,2 sites around the world. Work on interfaces from various Event generators to experimental software.

### **Low Background Laboratory for Nuclear Physics**

Involved in Cosmic ray research, especially in simulation (CORSIKA. Geant4) and data analysis of continuous monitoring of Muon flux. Further more, involvement in low background gamma spectroscopy, and development of data analysis software. Also, addresses the problems of Radon in houses and underground laboratory.

During this time dr Dimitrije Maletić is author of 97 papers, with 3,283 citations without autocitations (<http://inspirehep.net/>).

It could be mentioned that dr Dimitrije Maletić has noticable activity in popularization of Physics and pedagogical work.

### **Leading of project tasks**

- 2011. Startup of on-line automatic data analysis “robot” for Cosmic ray - Muon monitoring Belgrade station.
- 2012. Startup of computer (cloud like) cluster of servers received as a gift from CERN IT department to Institute of Physics.

### **Representation in committees**

2012-2014. Representative of the Institute of Physics in department for Physics of Nuclear and Particle Physics in Serbian Physics Society.

## **Reviewer**

- Reviewer for: *Nuclear Technology and Radiation Protection*.

## **International collaboration**

2004-2010. CMS experiment at CERN.

2011-2013. NA61 experiment at CERN.

## **List of selected papers**

1. P. Milenovic, J. Puzovic, D. Jovanovic, D. Maletic, G. Dissertori, P. Adzic, *Performance of the CMS-ECAL Safety System for Super Modules SM0 and SM1*, Nucl Instrum Meth A, **554**, 427-436, 2005.
2. D.Barney, W.Bialas, P.Kokkas, N.Manthos, D.Maletic, I.Papadopoulos, A.Peisert, S.Reynaud, P.Vichoudis, *Detection of muons at 150 GeV/c with a CMS Preshower Prototype*, Nucl Instrum Meth A, **564**, 126-133, 2006.
3. G.L. Bayatian et al. (with D. Maletic) CMS Collaboration, *CMS technical design report, volume II: Physics performance*, J Phys G, **34**, 995-1579, 2007.
4. R. Banjanac, D. Maletić, D. Joković, N. Veselinović, A. Dragić, V. Udovičić, I. Aničin, *On the omnipresent background gamma radiation of the continuous spectrum*, Nucl Instrum Meth A, **745**, 7-11, 2014.
5. R. Banjanac, A. Dragić, V. Udovičić, D. Joković, D. Maletić, N. Veselinović, M. Savić, *Variations of gamma-ray background in the Belgrade shallow underground low-level laboratory*, Appl Radiat Isotopes, **87**, 70, 2014.
6. A. Dragić, V. Udovičić, R. Banjanac, D. Joković, D. Maletić, N. Veselinović, M. Savić, J. Puzović, I. Aničin, *The new set-up in the Belgrade low-level and cosmic-ray laboratory*, Nucl Technol Radiat, **26**, 181-192, 2011.
7. V. Udovičić, J. Filipović, A. Dragić, R. Banjanac, D. Joković, D. Maletić, B. Grabež, N. Veselinović *Daily and seasonal radon variability in the underground low-background laboratory in Belgrade, Serbia*, Radiation Protection Dosimetry, doi: 10.1093/rpd/ncu109, 2014.
8. D. Maletić, V. Udovičić, R. Banjanac, D. Joković, A. Dragić, N. Veselinović, J. Filipović, *Comparison of multivariate classification and regression methods for the indoor radon measurements*, Nucl Technol Radiat, **29**, 17-23, 2014.

9. Dimitrije M. Maletić, Vladimir I. Udovičić, Radomir M. Banjanac, Dejan R. Joković, Aleksandar L. Dragić, Nikola B. Veselinović, Jelena Filipović, *Correlative and multivariate analysis of increased radon concentration in underground laboratory*, Radiation Protection Dosimetry, Accepted for publication.
10. A. Dragić, I. Aničin, R. Banjanac, V. Udovičić, D. Joković, D. Maletić, J. Puzović, *Forbush decreases – clouds relation in the neutron monitor era*, Astrophysics and Space Science Transactions, **7**, 315-318, 2011.
11. R. Banjanac, V. Udovičić, A. Dragić, D. Joković, D. Maletić, N. Veselinović, B. Grabež, *Daily variations of gamma-ray background and radon concentration*, Romanian Journal of Physics, **58**, S14-S21, 2013.
12. V. Udovičić, N. Veselinović, D. Joksimović, R. Banjanac, D. Maletić, D. Joković, D. Lukić, *Plasma focus studies in Serbia*, Journal of Modern Physics, **5**, 82-88, 2014.
13. K. Karafasoulis, A. Kyriakis and D. Maletic, *Neutral Pion rejection for isolated and unconverted photon candidates using CMS ECAL and Preshower detector*, CMS Analysis Note 2008/036
14. D. Maletić, V. Udovičić, R. Banjanac, A. Dragić, D. Joković, M. Savić, N. Veselinović, J. Puzović, *Semi-empirical simulation of natural background in underground laboratory*, Proceedings of the 3rd International Conference on Environmental Protection, Veszprém, Hungary, p. 83-88, 2012
15. I. Aničin, D. Maletić, A. Dragić, R. Banjanac, D. Joković, N. Veselinović, V. Udovičić, M. Savić, J. Puzović, *Stopped cosmic ray muons in plastic scintillators on the surface and at the depth of 25 m.w.e.*, 23rd European Cosmic Ray Symposium, Moscow, Russia (2012); Journal of Physics: Conference Series, **409**, 012142, 2013.
16. A. Dragić, I. Aničin, R. Banjanac, V. Udovičić, D. Joković, D. Maletić, M. Savić, N. Veselinović, J. Puzović, *Neutrons produced by muons at 25 mwe*, 23rd European Cosmic Ray Symposium, Moscow, Russia (2012); Journal of Physics: Conference Series, **409**, 012054, 2013.
17. Dimitrije Maletić, Jelena Ajtić, Vladimir Đurđević, Dragana Todorović, Jelena Nikolić, Radomir Banjanac, and Vladimir Udovičić, *Multivariate analysis of climate variables, teleconnection indices and activities of Lead-210 and Beryllium-7 in surface air in Belgrade, Serbia*, Proceedings - The Second International Conference on Radiation and Dosimetry in Various Fields of Research, RAD 2014, May 27-30, 2014, Niš, Serbia, pp. 13-16., 2014.