

## Curriculum Vitae - Magdalena Djordjevic

Institute of Physics	Date of birth:	04. 07. 1976
University of Belgrade	Citizenship:	Serbia
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### Scientific Interests

- Theoretical Nuclear and High Energy Physics. Relativistic Heavy Ion Collisions.
- Computational Systems Biology. Modeling bacterial immune systems.

### Education

June 2005: PhD, Department of Physics, Columbia University, NY, USA.  
Feb 2004: M. Phil. in Physics, Columbia University, NY, USA.  
May 2002: M. A. in Physics, Columbia University, NY, USA.  
June 2000: Diploma in Physics, Belgrade University, Faculty of Physics, Serbia

### Current position

Dec 2016: Research Professor, Leader of the Relativistic Heavy Ion Group, Institute of Physics, University of Belgrade, Serbia

### Previous positions

Oct 2010 – Dec 2016: Research Associate Professor and Marie Currie Fellow (through FP7 MCIRG), Institute of Physics, University of Belgrade, Serbia  
Sept 2008 – Jun 2010 : Assistant Professor of Physics, Arkansas State University, USA  
Sept 2005 – Aug 2008: Postdoctoral Researcher, Department of Physics, Ohio State University, USA  
Sept 2001 – Aug 2005: Research Assistant, Department of Physics, Columbia University, USA  
Feb 2001 – Aug 2005: Theory group member, Department of Physics, Columbia University, USA  
Sept 2000 – Sept 2001: Faculty fellow, Department of Physics, Columbia University, USA  
Jun 1999 – Jun 2000: Diploma Thesis Research, Institute of Physics, University of Belgrade, Serbia

### Teaching experience

- **Arkansas State University, AR**  
Fall 2008, Fall 2009, Spring 2010: University Physics I  
Spring 2009: General Physics I
- **Columbia University, NY**  
Fall 2004: TA for the *Electromagnetic Theory I*  
Spring 2004: TA for the *Quantum Mechanics II*  
Fall 2003: TA for the *Quantum Mechanics I*  
Spring 2003: TA for the Advanced Mechanics  
Fall 2002: TA for the *Statistical Mechanics*  
Fall 2000 and Spring 2001: TA for the *Introduction to Physics Laboratory*

### Awards

Sept 2019: *Member of the Young Academy of Europe (YAE)*, awarded by the Selection Committee and the Board of YAE.  
May 2016: "*IPB 2016 Annual Research Prize*", awarded by Institute of Physics Belgrade, U. of Belgrade, Serbia.

- April 2012: "L'Oréal-UNESCO For women in science award in Serbia", awarded by L'Oréal-UNESCO Partnership, with support from the Ministry of Science of Serbia.
- March 2011: "Marie Curie International Reintegration Grant" awarded by European Union (Research Executive Agency), with a goal to support return to Europe "of top level European researchers who have been working in other parts of the world".
- May 2010: "Ralph E. Powe Jr. Faculty Enhancement Award" awarded by Oak Ridge Associated Universities. The award is given to the best young faculty in the competition of 120 universities in the USA that are associated with Oak Ridge National Lab.
- Jan 2008: "J. Robert Oppenheimer Fellowship" offered by Los Alamos National Laboratory (January 2008). A description of the award is: "Candidates must display extraordinary ability in scientific research and show clear and definite promise of becoming outstanding leaders in the research they pursue".
- Apr 2007: "2007 Dissertation Award in Nuclear Physics" awarded by the American Physical Society (APS). The award is given by APS for the best PhD thesis in nuclear physics in competition of all North American Universities. The citation of the PI award is as follows: "For her dissertation presenting a theoretical treatment of heavy quark energy loss in a strongly interacting quark gluon plasma in which the gluon radiative energy loss was solved to all orders in opacity."
- Oct 2004: The Best Poster Award, Physics of the Microworld, New York, NY, USA.
- 1995–2000: 'Department of Science' Fellowship (awarded five times), Serbia.
- June 1995: Best students of generation award, Mathematical Gymnasium, Belgrade, Serbia.

### **Awarded grants**

- Principal Investigator: Horizon2020 European Research Council (ERC) 2016 Consolidator Grant, ERC-2016-COG:725741, "A novel Quark-Gluon Plasma tomography tool: from jet quenching to exploring the extreme medium properties", from 2017-2022, EUR 1.356.000
- IPB Coordinator: Swiss National Science Foundation SCOPES project, IZ73Z0\_152297, "Bioinformatics and modeling of bacterial immune systems - understanding control of CRISPR/Cas", from 2014-2017, 193.500 CHF (75.000 CHF to IPB)
- Scientist in charge: FP7 Marie Curie International Reintegration grant, PIRG08-GA-2010-276913, "Theoretical predictions of jet observables in QCD matter", European Commission (Research Executive Agency), from 2011-2015, EUR 100.000

### **Editorial activities**

- Editorial Board Member for *PMC Physics A* – PhysMath Central, Springer (from 2007-2010)
- Referee for *Physical Review Letters*, *Physical Review C*, *Physical Review D* (American Physical Society), *Journal of Physics G* (Institute of Physics), *Physical Letters B* (Elsevier), *Nuclear Physics A* (Science Direct).

### **Member of international advisory committees**

- Quark Matter 2019 conference (The XXVIII International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions), Nov 2019, Wuhan, China.
- Hard Probes 2018 conference, (9th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions), Oct 2018, Aix-Les-Bains, France.
- Hard Probes 2016 conference, Sept 2016, Wuhan, China.
- EMMI rapid reaction task force (RRTF), July 2016, GSI Darmstadt, Germany.
- HEPFT2013 conference (XXIXth International Workshop on High Energy Physics), June 2013, Protvino, Russia.

## Major international collaborations

- Jun 2012 - 2015: JET collaboration (jet.lbl.gov) - DOE (USA) funded collaboration on theoretical jet physics. M. Djordjevic was an associate of JET collaboration as a representative of opacity expansion approach.
- Sept 2013 - Dec 2014. SaporeGravis, joint theoretical and experimental collaboration in ultra-relativistic heavy ion collisions. M. Djordjevic is a representative for heavy flavor energy loss.
- Dec 2014 - current. HICHEF (a continuation of SaporeGravis), applied for Horizon2020 funds.
- Providing predictions (by invitation) for ALICE, ATLAS and CMS experiments at the LHC (continuously since 2012) and STAR and PHENIX experiment at RHIC (since 2004).
- February 2016 - current: COST Action for Theory of Heavy Ion Physics and related areas (THOR). M. Djordjevic is a representative for heavy flavor energy loss.

## Publications

Total number of citations > **4150** (per per Google Scholar), h-index **25**

### A. Journal articles – Theoretical high energy physics

1. Dusan Zigic, Bojana Ilic, Marko Djordjevic, Magdalena Djordjevic, *Exploring the initial stages in heavy-ion collisions with high- $p_{\perp}$  RAA and  $v_2$  theory and data*, Phys. Rev. C **101**, 064909 (2020).
2. Magdalena Djordjevic, Stefan Stojku, Marko Djordjevic and Pasi Huovinen, *How to infer the shape of the QGP droplet from the data*, Phys. Rev. C Rapid Communications **100**, 031901 (2019).
3. Magdalena Djordjevic, Dusan Zigic, Marko Djordjevic, Jussi Auvinen, *How to test path-length dependence in energy loss mechanisms: analysis leading to a new observable*, Phys. Rev. C Rapid Communications **99**, 061902 (2019).
4. Dusan Zigic, Igor Salom, Jussi Auvinen, Marko Djordjevic, Magdalena Djordjevic, *DREENA-C framework: joint  $R_{AA}$  and  $v_2$  predictions and implications to QGP tomography*, J Phys. G **46**, 085101 (2019).
5. Dusan Zigic, Igor Salom, Jussi Auvinen, Marko Djordjevic, Magdalena Djordjevic, *DREENA-B framework: first predictions of  $R_{AA}$  and  $v_2$  within dynamical energy loss formalism in evolving QCD medium*, Phys. Lett. B **791**, 236 (2019).
6. Bojana Blagojevic, Marko Djordjevic, Magdalena Djordjevic, *Calculating hard probe radiative energy loss beyond the soft-gluon approximation: Examining the approximation validity*, Phys. Rev. C **99**, 024901 (2019).
7. Magdalena Djordjevic, Dusan Zigic, Bojana Blagojevic, Jussi Auvinen, Igor Salom, Marko Djordjevic, *Dynamical energy loss formalism: from describing suppression patterns to implications for future experiments*, Proc. of the Quark Matter 2018, Nucl. Phys. A **982**, 699 (2019).
8. R.Rapp (ed.), *et al.*, *Extraction of heavy flavor transport coefficients in QCG matter*, Nucl. Phys. A **979**, 21 (2018).
9. G. Aarts *et al.*, *Heavy-flavor production and medium properties in high-energy nuclear collisions - What next?* Eur. Phys. J. A **53** 5, 93 (2017).
10. Magdalena Djordjevic, *Complex suppression patterns distinguish between major energy loss effects in Quark–Gluon Plasma*, Phys. Lett. B **763** 439 (2016).
11. Magdalena Djordjevic, Bojana Blagojevic, Lidija Zivkovic, *Mass tomography at different momentum ranges in quark-gluon plasma*, Phys. Rev. C **94** 4, 044908 (2016).
12. Magdalena Djordjevic, *Dynamical energy loss as a novel Quark–Gluon Plasma tomographic tool*, Proc. of the Quark Matter 2015, Nucl. Phys. A **956** 633 (2016).
13. A. Andronic *et al.*, *Heavy-flavour and quarkonium production in the LHC era: from proton–proton to heavy-ion collisions*, Eur. Phys. J. C **76** 3, 107 (2016).

14. [Magdalena Djordjevic](#) and Marko Djordjevic, *Predictions of heavy-flavor suppression at 5.1 TeV Pb + Pb collisions at the CERN Large Hadron Collider*, Phys. Rev. C **92** 2, 024918 (2015).
15. Bojana Blagojevic and [Magdalena Djordjevic](#), *Importance of different energy loss effects in jet suppression at RHIC and LHC*, J. Phys. G **42**, 075105 (2015) (highlighted in LabTalk).
16. [Magdalena Djordjevic](#), *Heavy flavor puzzle at LHC: a serendipitous interplay of jet suppression and fragmentation*, Phys. Rev. Lett. **112**, 042302 (2014).
17. [Magdalena Djordjevic](#), Marko Djordjevic and Bojana Blagojevic, *RHIC and LHC jet suppression in non-central collisions*, Phys. Lett. B **737** 298-302 (2014).
18. [Magdalena Djordjevic](#) and Marko Djordjevic, *LHC jet suppression of light and heavy flavor observables*, Phys. Lett. B **734**, 286 (2014).
19. [Magdalena Djordjevic](#) and Marko Djordjevic, *Heavy flavor puzzle from data measured at the BNL Relativistic Heavy Ion Collider: Analysis of the underlying effects*, Phys. Rev. C **90**, 034910 (2014).
20. [Magdalena Djordjevic](#) and Marko Djordjevic, *Understanding the strong suppression patterns at RHIC and LHC*, Mod. Phys. Lett. A **29**, 1430035, 2014.
21. [Magdalena Djordjevic](#) and Marko Djordjevic, *Explaining the fine hierarchy in pion and kaon suppression at LHC: Importance of fragmentation functions*, J. Phys. G **41**, 055104 (2014).
22. [Magdalena Djordjevic](#), *Light and heavy flavor phenomenology at RHIC and LHC*, Proc. of the Hard Probes 2013, Nucl. Phys. A **932**, 302 (2014).
23. [Magdalena Djordjevic](#), *Theoretical predictions of jet suppression: A systematic comparison with RHIC and LHC data*, Proc. of the Quark Matter 2014, Nucl. Phys. A **931**, 505 (2014).
24. [Magdalena Djordjevic](#), *Heavy flavor suppression in a dynamical QCD medium with finite magnetic mass*, Proc. of the Hard Probes 2012, Nucl. Phys. A **910-911**, 203 (2013).
25. [Magdalena Djordjevic](#), *Jet suppression of pions and single electrons at Au+Au collisions at RHIC*, Phys. Rev. C **85**, 034904 (2012).
26. [Magdalena Djordjevic](#) and Marko Djordjevic, *Generalization of radiative jet energy loss to non-zero magnetic mass*, Phys. Lett. B **709**, 229 (2012).
27. [Magdalena Djordjevic](#), *Magnetic and electric contributions to the energy loss in a dynamical QCD medium*, J. Phys. G **39**, 045007 (2012).
28. [Magdalena Djordjevic](#), *Theoretical formalism of radiative jet energy loss in a finite size dynamical QCD medium*, Phys. Rev. C **80**, 064909 (2009) (highlighted in: M Gyulassy, Physics **2**, 107 (2009)).
29. [Magdalena Djordjevic](#), *Dynamical Effects on Jet Energy Loss in QCD Medium*, Nucl. Phys. A **830**, 163C (2009).
30. [Magdalena Djordjevic](#) and Ulrich Heinz, *Radiative energy loss in a finite size dynamical QCD matter*, Phys. Rev. Lett. **101**, 022302 (2008).
31. [Magdalena Djordjevic](#) and Ulrich Heinz, *Radiative heavy quark energy loss in a dynamical QCD medium*, Phys. Rev. C **77**, 024905 (2008).
32. [Magdalena Djordjevic](#) and Ulrich Heinz, *Effect of dynamical QCD medium on radiative heavy quark energy loss*, J. Phys. G **35**, 054001 (2008).
33. [Magdalena Djordjevic](#), *Heavy quark energy loss: Radiative vs. Collisional*, Proc. of the Hard Probes 2006, Nucl. Phys. A **783**, 197 (2007).
34. Simon Wicks, William Horowitz, [Magdalena Djordjevic](#) and Miklos Gyulassy, *Heavy Quark Jet Quenching with Collisional plus Radiative Energy Loss and Path Length Fluctuations*, Proc. of the Hard Probes 2006, Nucl. Phys. A **783**, 493 (2007).
35. Simon Wicks, William Horowitz, [Magdalena Djordjevic](#), Miklos Gyulassy, *Heavy quark tomography of A+A including elastic and inelastic energy loss*, Nucl. Phys. A **784**, 426 (2007).
36. [Magdalena Djordjevic](#), *Collisional energy loss in a finite size QCD matter*, Phys. Rev. C **74**, 064907 (2006).
37. [Magdalena Djordjevic](#), *Transition radiation in QCD matter*, Phys. Rev. C **73**, 044912 (2006)

38. Magdalena Djordjevic, Miklos Gyulassy, Simon Wicks and Ramona Vogt, *Influence of bottom quark jet quenching on single electron tomography of Au + Au.*, Phys. Lett. B **632**, 81 (2006).
39. Magdalena Djordjevic, *Overview of heavy quark energy loss puzzle at RHIC*, Proc. of the Intl. Conference on Strangeness in Quark Matter (SQM 2006), J. Phys. G **32**, S333 (2006).
40. Magdalena Djordjevic, Miklos Gyulassy, Ramona Vogt and Simon Wicks, *The single electron puzzle at RHIC*, Nucl. Phys. A **774**, 689 (2006).
41. Magdalena Djordjevic, Miklos Gyulassy and Simon Wicks, *Open Charm and Beauty at Ultrarelativistic Heavy Ion Colliders*, Phys. Rev. Lett. **94**,112301 (2005).
42. Magdalena Djordjevic, Miklos Gyulassy and Simon Wicks, *Charm and Beauty at RHIC and LHC*, Eur. Phys. J. C **43**, 135 (2005).
43. Magdalena Djordjevic and Miklos Gyulassy, *Charm Quark Suppression and Elliptic Flow at RHIC*, Acta Phys. Hung. **A 24**, 313 (2005).
44. Magdalena Djordjevic and Miklos Gyulassy, *Heavy Quark Radiative Energy Loss in QCD Matter*, Nucl. Phys. A **733**, 265 (2004).
45. Magdalena Djordjevic and Miklos Gyulassy, *Heavy quark energy loss: Applications to RHIC*, J. Phys. G **30**, S1183 (2004).
46. Magdalena Djordjevic and Miklos Gyulassy, *Charm quark energy loss at RHIC*, Acta Phys. Hung. **A 21**, 365 (2004).
47. Magdalena Djordjevic and Miklos Gyulassy, *Ter-Mikayelian Effect on QCD Radiative Energy Loss*, Phys. Rev. C **68**, 034914 (2003).
48. Magdalena Djordjevic and Miklos Gyulassy, *Where is the charm quark energy loss at RHIC*, Phys. Lett. B **560**, 37 (2003).
49. Istok Mendas, Marko Djordjevic and Magdalena Markovic, *Properties of the nonclassical maximum-entropy states*, J. Phys. A: Math. Gen. **33**, 921 (2000).

## **B. Journal articles – Computational systems biology**

50. Ognjen Milicevic, Jelena Repac, Bojan Bozic, Magdalena Djordjevic and Marko Djordjevic M, *A Simple Criterion for Inferring CRISPR Array Direction*. Front. Microbiol. **10**, 2054 (2019).
51. Stefan Graovac, Andjela Rodic, Magdalena Djordjevic, Konstantin Severinov, Marko Djordjevic, *Effects of Population Dynamics on Establishment of a Restriction-Modification System in a Bacterial Host*, Molecules **24**, E198 (2019).
52. Jelena Guzina, Weihua Chen, Tamara Stankovic, Magdalena Djordjevic, Evgeny Zdobnov, Marko Djordjevic, *In silico Analysis Suggests Common Appearance of scaRNAs in Type II Systems and Their Association With Bacterial Virulence*, Front. Genetics **9**,474 (2018).
53. Marko Djordjevic, Magdalena Djordjevic and Evgeny Zdobnov, *Scoring Targets of Transcription in Bacteria Rather than Focusing on Individual Binding Sites*, Front. Microbiol. **8**, 2314 (2017).
54. Andjela Rodic, Bojana Blagojevic, Konstantin Severinov, Magdalena Djordjevic and Marko Djordjevic, *Features of CRISPR-Cas Regulation Key to Highly Efficient and Temporally-Specific crRNA Production.*, Front. Microbiol. **8**, 2139 (2017).
55. Andjela Rodic, Bojana Blagojevic, Evgeny Zdobnov, Magdalena Djordjevic and Marko Djordjevic, *Understanding key features of bacterial restriction-modification systems through quantitative modeling*, BMC Systems Biology **11**:377 (2017).
56. Marko Djordjevic and Magdalena Djordjevic, *A simple biosynthetic pathway for large product generation from small substrate amounts*, Phys. Biol. **9**, 056004 (2012).
57. Marko Djordjevic, Magdalena Djordjevic and Konstantin Severinov, *CRISPR transcript processing: a mechanism for generating a large number of small interfering RNAs*, Biol. Direct **7**, 24 (2012).

## Presentations

### A. Invited talks at conferences and workshops

1. *Light and heavy flavor tomography*, 8th Edition of the Large Hadron Collider Physics Conference (LHCP 2020), May 2020, Paris, France.
2. *Dynamical energy loss formalism*. 19<sup>th</sup> Zimanyi Winter Workshop on Heavy Ion Physics, Dec 2019, Budapest, Hungary.
3. *QGP Tomography: Exploring Little Bangs at landmark experiments*, Young Academy of Europe, Annual General Meeting 2019, Oct 2019, Barcelona, Spain.
4. *Heavy Ion Theory*, Beauty 2019 conference, Sept 2019, Ljubljana, Slovenia.
5. *QGP Tomography: exploring Little Bangs at landmark experiments*, ERC Funding Opportunities: Supporting excellent researchers all over Europe, Sept 2019, Belgrade, Serbia.
6. *Past, present and future of high pt observables*, The Past, Present, and Future of Relativistic Heavy Ion Collisions, March 2019, Knoxville, USA.
7. *Dynamical energy loss and its implications to QGP tomography*, XIII International Workshop on High-pt Physics in the RHIC&LHC era, March 2019, Knoxville, USA.
8. *DREENA framework: high pt predictions and proposal of a new observable*, MIAPP workshop: Exploring the perfect liquid, Sept 2018, Munich, Germany.
9. *Open charm in heavy-ion collisions*, The 9th International Workshop on Charm Physics (CHARM 2018), May 2018, Novosibirsk, Russia.
10. *Dynamical energy loss formalism and comparison with experimental data*, ALICE Journal Club, Nov 2017, CERN.
11. *Complex suppression patterns at the LHC: contribution of different steps in the suppression scheme*, COST action THOR and the GDRE "Heavy Quarks", Sept 2017, Athens, Greece.
12. *Quark-gluon plasma tomography*, 9th Mathematical Physics Meeting, Sept 2017, Belgrade, Serbia.
13. *Tomography of quark-gluon plasma*, ERC workshop, March 2017, Novi Sad, Serbia.
14. *Energy loss in quark-gluon plasma*, Lorentz workshop: Tomography of the quark-gluon plasma with heavy quarks, Oct 2016, Leiden, Netherlands.
15. *QGP tomography through high momentum probes*, XIIth International Conference on "Quark Confinement and the Hadron Spectrum", Aug 2016, Thessaloniki, Greece.
16. *Dynamical energy loss: QGP Tomography*, EMMI RRTF: Heavy quarks in QGP, July 2016, GSI, Germany.
17. *Dynamical energy loss: High pt predictions*, EMMI RRTF: Heavy quarks in QGP, July 2016, GSI, Germany.
18. *Dynamical energy loss: The formalism*, EMMI RRTF: Heavy quarks in QGP, July 2016, GSI, Germany.
19. *Theory: hard probes*, The Third Annual Large Hadron Collider Physics Conference (LHCP 2015), Sept 2015, St. Petersburg, Russia
20. *Radiative and collisional energy loss in the QGP*, Strangeness in Quark Matter 2015, July 2015, Dubna, Russia.
21. *Heavy Flavour and energy loss*, First SaporeGravis Workshop (SGW13), Dec 2013, Nantes, France.
22. *Phenomenological results in Light and Heavy Flavor Energy Loss*, Hard Probes 2013, Nov 2013, Cape Town, South Africa.
23. *Modeling of bacterial immune systems: processing of CRISPR transcripts*, TABIS 2013 - Theoretical Approaches to BioInformation Systems, Belgrade, Serbia, Sept 2013.
24. *Jet energy loss in a finite size dynamical QCD medium*, Symposium on occasion of Miklos Gyulassy's 60<sup>th</sup> birthday, Apr 2009, LBNL, Berkeley, CA, USA.

25. *Heavy Quark Energy Loss in a Dynamical QCD Medium*, Tamura Symposium, Nov 2008, The University of Texas at Austin, TX, USA.
26. *Quantifying dynamical QCD plasma through jet energy loss*, 2008 Fall Meeting - Division of Nuclear Physics - American Physical Society (DNP'08), Oct 2008, Oakland, CA, USA.
27. *Heavy Quark Energy Loss in a Dynamical QCD Medium*, Conference on Early Time Dynamics in Heavy Ion Collisions, Jul 2007, Montreal, Canada.
28. *Effect of dynamical QCD medium on radiative heavy quark energy loss*, 2007 RHIC & AGS Annual Users' Meeting, Jun 2007, BNL, Upton, NY, USA.
29. *Heavy Quark Energy Loss in a Dynamical QCD Medium*, HIC at the LHC – Last Call for Predictions, May 2007, CERN, Geneva, Switzerland.
30. *Heavy Quark Energy Loss in a Strongly Interacting Quark Gluon Plasma*, APS April Meeting, Apr 2007, Jacksonville, FL, USA.
31. *Heavy Flavor Energy loss at URHIC*, INT Program 06 - From RHIC to LHC: Achievements and Opportunities, Oct 2006, Seattle, WA, USA.
32. *Open Questions in Heavy Flavor Physics*, Future Prospects in QCD at High Energy, Jul 2006, BNL, Upton, NY, USA.
33. *Mini Lecture: Heavy Flavor Physics at RHIC*, STAR Collaboration Meeting, Jul 2006, MIT, Boston, MA, USA.
34. *Heavy Quark Energy Loss: Radiative vs. Collisional*, International Conference on Hard and Electromagnetic Probes of High Energy Nuclear Collisions (Hard Probes 2006), Jun 2006, Asilomar, CA, USA.
35. *Zeroth order energy loss in QCD medium: radiative vs. collisional*, Hard Probes 2006, Jun 2006, Asilomar, CA, USA.
36. *Heavy Quark Energy Loss Puzzle at RHIC*, International Conference on Strangeness in Quark Matter, Mar 2006, Los Angeles, CA, USA.
37. *Heavy Quark Energy Loss in Nucleus-Nucleus Collision*, Heavy flavor workshop, Dec 2005, BNL, Upton, NY, USA.
38. *Hard Probes at RHIC and LHC*, ALICE-USA collaboration meeting, Oct 2005, LBNL, Berkeley, CA, USA.
39. *Single Electron Puzzle at RHIC*, STAR HFT, Oct 2005, LBNL, Berkeley, CA.
40. *Heavy quark energy loss at RHIC and LHC*, RHIC II heavy flavor meeting, Apr 2005, BNL, Upton, NY, USA.
41. *Theory Talk: Quark Energy Loss*, Muon Physics and Forward Upgrades Workshop, Jun 2004, Santa Fe, NM, USA.
42. *Heavy quark energy loss*, 2004 RHIC & AGS Annual Users' Meeting, Brookhaven National Laboratory, Apr 2004, Upton, NY, USA.
43. *Heavy quark energy loss - Applications to RHIC and LHC*, 20th Winter Workshop on Nuclear Dynamics, Mar 2004, Trelawny Beach, Jamaica.
44. *Heavy quark energy loss*, Conference on the Intersections of Particle and Nuclear Physics, May 2003, New York, NY, USA.
45. *Heavy quark production and energy loss at RHIC*, 19th Winter Workshop on Nuclear Dynamics, Feb 2003, Breckenridge, CO, USA.

## **B. Invited seminars and colloquia**

46. *QGP tomography through dynamical energy loss formalism*, Physics Seminar, University of Barcelona, Oct 2019, Barcelona, Spain.

47. *DREENA framework as a multipurpose QGP tomography tool*, Relativistic Heavy Ion Seminar, MIT, July 2019, Boston, USA.
48. *DREENA framework as a multipurpose QGP tomography tool*, Nuclear Theory Seminar, Brookhaven National Laboratory, June 2019, Upton, USA.
49. *Dynamical energy loss: towards high-precision QGP tomography*, Department of Physics Seminar, Duke University, March 2019, Durham, USA,
50. *Dynamical energy loss formalism and comparison with experimental data*, Physics Department Colloquium, University of Tennessee, March 2019, Knoxville, USA.
51. *Understanding the features of quark-gluon plasma through theoretical modeling*, Department of Physics Seminar, University of Novi Sad, Oct 2017, Novi Sad, Serbia.
52. *Quark-gluon plasma as a new extreme form of matter*, Department of Physics Seminar, University of Belgrade, May 2017, Belgrade, Serbia.
53. *Quark-gluon plasma tomography and ERC*, Center for the Promotion of Science, UK Parobrod, Dec 2016, Belgrade, Serbia.
54. *Dynamical energy loss as a tool for QGP Tomography*, IPB 2016 award, Institute of Physics Belgrade, May 2016, Belgrade, Serbia.
55. *Theoretical models for quark-gluon plasma tomography*, IPB Seminar, Institute of Physics Belgrade, March 2016, Belgrade, Serbia.
56. *Dynamical QCD medium effects on jet energy loss*, Nuclear and Particle Physics Seminar, May 2008, MIT, Cambridge, MA, USA.
57. *Jet Energy loss in a Quark Gluon Plasma*, Nuclear Physics Seminar, Jan 2008, Arkansas State University, Jonesboro, AR, USA.
58. *Heavy Quark Energy loss in a dynamical QCD medium*, Nuclear Physics Seminar, Dec 2007, Los Alamos National Laboratory, Los Alamos, NM, USA.
59. *Effect of dynamical QCD medium on radiative heavy quark energy loss*, Nuclear Physics Seminar, Nov 2007, Iowa State University, Ames, IA, USA.
60. *Heavy Quark Energy loss in a dynamical QCD medium*, Nuclear Physics & RIKEN Theory Seminar, Nov 2007, BNL, Upton, NY, USA.
61. *Collisional and radiative energy loss mechanisms at RHIC*, Center for Nuclear Research Seminar, Apr 2006, Kent University, Kent, OH, USA.
62. *Single electron puzzle at RHIC*, Nuclear Physics Seminar, Dec 2005, The Ohio State University, Columbus, OH, USA.
63. *Heavy Flavor Suppression Pattern at RHIC*, HIT seminar, Oct 2005, LBNL, Berkeley, CA, USA.
64. *Open Charm and Beauty at RHIC and LHC*, Nuclear and Heavy Ion Physics Seminar, Feb 2005, SUNY at Stony Brook, Stony Brook, NY, USA.
65. *Heavy Quark Suppression at RHIC*, HIT seminar, Jan 2005, LBNL, Berkeley, CA, USA.
66. *Open Charm and Beauty at RHIC and LHC*, Internal Seminar in HEP, Jan 2005, Tel Aviv University, Tel Aviv, Israel.
67. *The Charm and Beauty of RHIC and LHC*, Nuclear Theory Seminar, Dec 2004, The Ohio State University, Columbus, OH, USA.

### **C. Contributed talks at conferences and workshops**

68. *How to infer the shape of the QGP droplet from high pt data*, Quark Matter 2019, Nov 2019, Wuhan, China.
69. *How to infer the shape of the QGP droplet from the data*, Initial Stages 2019, June 2019, New York, USA.



70. *Dynamical energy loss: exploring the QGP with high pt theory and data*, Strangeness in Quark Matter 2019, June 2019, Bari, Italy.
71. *DREENA framework: predictions, comparison with experimental data, and proposal of a new observable*, Hard Probes 2018, Oct 2018, Aix les Bains, Savoi, France.
72. *Dynamical energy loss formalism: from explaining unexpected suppression patterns to implications for future experiments*, Quark Matter 2018, May 2018, Venice, Italy.
73. *Dynamical energy loss as a novel tomographic tool of QGP at RHIC and LHC*, Quark Matter 2015, Sept 2015, Kobe, Japan.
74. *Theoretical predictions of jet suppression: a systematic comparison with RHIC and LHC data*, Quark Matter 2014, May 2014, Darmstadt, Germany.
75. *Modeling of bacterial immune systems: CRISPR/Cas regulation*, The 9<sup>th</sup> Conference on Bioinformatics of Genome Regulation and Structure\Systems Biology — BGRS\SB-2014, Jun 2014, Novosibirsk, Russia.
76. *LHC heavy flavor suppression: finite magnetic mass in a dynamical QCD medium*, Strangeness in Quark Matter 2013, July 2013, Birmingham, United Kingdom.
77. *Heavy flavor suppression: an interplay of electric and magnetic mass effects*, Hard Probes 2012, May 2012, Cagliari, Italy.
78. *Quantifying dynamical QCD plasma through jet energy loss*, The XIX International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions (Quark Matter 2009), Apr 2009, Knoxville, TN, USA.
79. *Jet energy loss in a dynamical QCD medium*, DNP'07, Oct 2008, Oakland, CA, USA.
80. *Heavy Quark Energy Loss in a Finite Quark Gluon Plasma*, DNP'07, Oct 2007, Newport News, VA, USA.
81. *Heavy quark suppression pattern at RHIC and LHC*, Quark Matter 2005, Aug 2005, Budapest, Hungary.
82. *Charm and Beauty at RHIC and LHC*, Hard Probes 2004, Nov 2004, Ericeira, Portugal.
83. *Charm and Beauty at RHIC and LHC*, DNP'04, Oct 2004, Chicago, IL, USA.
84. *Heavy quark energy loss to all orders in opacity*, Quark Matter 2004, Jan 2004, Oakland, CA, USA.
85. *Radiative heavy quark energy loss in QCD matter*, 5th General Conference of the Balkan Physical Union, Aug 2003, Vrnjacka Banja, Serbia.

#### **D. Contributed posters at conferences and workshops**

86. Magdalena Djordjevic, Miklos Gyulassy and Simon Wicks, *Charm and Beauty at RHIC and LHC*, Physics of the Microworld: From quarks to Nanostructures, Oct 2004, New York, New York (awarded as the best poster of the conference).
87. Magdalena Markovic and Miklos Gyulassy, *Radiative Heavy quark energy loss in QCD matter*, The XVI International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions (Quark Matter 2002), Jul 2002, Nantes, France.