

MAMBRINI YANN

*LPT, Université Paris XI, Bat. 210
91 400 Orsay, France*

Directeur de Recherche au CNRS

Single

yann.mambrini@th.u-psud.fr

Tel : +33 (0)6 87 11 68 83

http://www.ymambrini.com/My_World/Physics.html

FORMATION

2016-2017 **Directeur de Recherche au CNRS, France** as part of the "beyond the standard model" pole of the laboratory.

2017-2021 **Associate professor** at the IFT Madrid.

2010-2015 **Chargé de recherche CR1 au CNRS, France** as part of the "beyond the standard model" pole of the laboratory.

2005-2010 **Chargé de recherche CR2 au CNRS, France** as part of the "beyond the standard model" pole of the laboratory.

2005 **Guest position at DESY, Hamburg** with professor PETER ZERWAS on the consequences of string inspired models on Linear Collider prospects.

2004 **Post-doctoral position at UAM de Madrid** with professor CARLOS MUNOZ on the indirect detection search of Dark Matter in supergravity scenarii.
Admitted for a permanent position at CNRS (France).

2003 **Post-doctoral (Teaching) position at LPT de Orsay** with professor PIERRE BINETRUY on the astroparticle consequences of superstring heterotic effective models.

2002 **Post-doctoral (Teaching) position at APC de Tolbiac** with professor PIERRE BINETRUY on the phenomenological consequences of superstring heterotic effective models in accelerator physics.

2001 **PhD Thesis of Theoretical Physics** from Orsay and Montpellier University with Mention "Très bien".

2001 **Military Service in the "Commissariat à l'Energie Atomique" (CEA)** in the department of nuclear and theoretical physics in the center of Bruyère le Châtel with J.F. BERGER (impact of SUSY physics in nuclei).

1997-2000 **PhD Thesis** from Orsay University (Paris XI) in Theoretical Particle Physics with ABDELHAK DJOUADI on the subject "**Decays of SUSY particles in the MSSM**" in the Laboratoire de Physique Mathématique et Théorique (LPMT) of Montpellier.

1997 **Magistère de Physique Fondamentale** in Orsay University (Paris XI), mention "Very Good" (16.5/20). **DEA Champs Particule et Matière**, mention "Bien" (15.5/20)

1995 **Magistère** in Orsay (Paris XI), first year with mention "Très bien" (17.4/20) and lectures with PIERRE FAYET in subatomic physics in the "Ecole Polytechnique".

Prizes

Prize of the Physics French Society for the best oral presentation of young researchers (400 euros) january 2005.

Scientific Excellence Prize (PES) CNRS 2010, 15 000 euro

Scientific Excellence Prize (PES) CNRS 2014, 15 000 euro

FOREIGN LONG TERM INVITATIONS

2015 **TPI Mainz Institute, Mainz, two months.**

- 2013 **GGI** *Gallileo Institute, Florence, three months.*
- 2011 **GGI** *Gallileo Institute, Florence, three months.*
- 2008 **UAM** *Madrid, two months, with Prof. Carlos Munoz.*
- 2008 **Physics Institute** *Warsaw, two months with teaching duties, with Prof. Stefan Pokorski.*
- 2007 **CERN** *Geneve, Swiss, one month, with Dr. Emilian Dudas.*
- 2006 **CERN** *Geneve, Swiss, one month, with Dr. Emilian Dudas.*
- 2004–2005 **DESY** *Hamburg, Germany, one year, with prof. Peter Zerwas.*

TEACHING

- 2017 **Physics lectures** *MOOC* (Massive Open Online Courses) ED ?HOM University Paris-Saclay: "Physique des 2 infinis".
- 2016 **Physics lectures** *Ecole Doctorale en Ile de France [ED564]*, 8 lectures of 2 hours: "Dark Matter and Physics Beyond Standard Model".
- 2015 **Physics lectures** *DUBNA, Russia*, 4 lectures of 3 hours: "From Early Universe to Accelerator Physics, the quest of Dark Matter".
- 2015 **Physics lectures** *Ecole Doctorale en Ile de France [ED564]*, 10 lectures of 2 hours: "Dark Matter and Physics Beyond Standard Model".
- 2015–2016 **Physics lectures** *Moscow State University (April-May) level M2*, 5 lectures of 2 hours: "Histories of particles: from the inflation to the dark matter".
- 2015–2016–2017 **Physics lectures** *MOOC* (Massive Open Online Courses) ED PHENIICS University Paris-Saclay: "Physics Beyond Standard Model".

- 2014 **Physics lectures** *International Linear Collider School*: Histories of Dark Matter.
- 2013 **Physics lectures** *AIMS*: African Institute for Mathematical Science, South Africa and Senegal: "Dark Matter and Physics beyond Standard Model"
- 2010–2014 **Physics lectures** in *Magic Monday Journal Club*: history of physics.
- 2008–2009 **Physics lectures** in *second year of Orsay University, Paris XI*, with prof. Renaud Parentani.
- 2008 **Physics lectures** in *fourth year of Warsaw University*, with prof. Stefan Pokorski.
- 2002–2003 **Physics lectures** in *first year of Orsay University, Paris XI*, with prof. ULRICH ELLWANGER.
- 2001–2002 **Physics lectures** in *Medecine University of Paris VII*, with prof. ISABELLE GRENIER.
- 2001–2004 **Physics lectures** *Institute ACADOMIA*, Organism of private lectures for bachelors.
- 2000–2001 **Mathematic lectures** in *University of Montpellier II*, science for Ingeneer, first year with prof. FRANCOIS CAVALIER.
 Physics lectures in *University of Montpellier II*, electricity, with prof. CAMBON.
- 1999–2000 **Mathematic lectures** in *University of Montpellier II*, Biological science, second year with prof. FRANCOIS CAVALIER.
 Mathematic lectures in *University of Montpellier II*, science for Ingeneer, first year with prof. FRANCOIS CAVALIER.
- 1998–1999 **Optic lectures** in *University of Montpellier II*, Biological science, second year with prof. CAMBON.
 COMPUTING lectures in *University of Montpellier II*, programmation BASIC, WORD, EXCEL, science for Ingeneer, first year with prof. CAMBON.
- 1997 **Stage** with Dr. ABDELHAK DJOUADI, "The Supersymmetry in the Higgs sector and the MSSM", in the Laboratoire de Physique Mathématique de Montpellier.

1996 **Stage with Pr. GUSTAVO BRANCO "The phenomenology in the neutral kaon system and CP violation"**, IST de Liboa, 3 months.

1995 **Stage with Dr. OLIVIER PENE, "The CP symmetry violation"**, Laboratoire de Physique Théorique d'Orsay, 4 months.

COMPUTING

Experiences in :

- Programmation : BASIC, Pascal, C, FORTRAN, Mathematica, Mapple, Latex, HTML.
- Logiciels : Word, Excel, Works, Labview.

LANGUAGES

- French : Birth language
- English : fluent
- Spanish : fluent
- Russian : notions
- Latin, 6 years

Networks, administration

- Associate Professor at IFT Madrid since 2017
- Head of FKPPPL (France Korea Particle Physics Laboratory) with Hyun Min Lee since 2016
- Representant of the LPT for the department SPU (Science Planete et Univers) of Paris Saclay since 2015
- Member (elected) of the **Conseil de Laboratoire** of the LPT since 2015
- Co-organizer of the Rencontre Physique des Particules 2015 in Paris
- **Editor** of the *Physics International Journal*

<http://thescipub.com/journals/pi>

- **PI coordinator** of the **project P2IO**: "Vers une approche microscopique de la recherche de la composante sombre de l'Univers" [1 post-doc]
- Member of the **Comité de Pilotage** (COFIL) of University Paris-Saclay since 2014
- Professor Paris Saclay (MOOC- Massive Online Open Courses) "Primordial Universe and BSM Physics"
- Member of the organizing committee of the "Ecole de Gif" since 2008
- Member of the Consortium AstroGAM [ESA satellite project] since 2014

<http://astromev.in2p3.fr>

- Honoris member of the "Particle and Astrophysics group" of UAM Madrid since 2010

<http://dark.ft.uam.es/papp/>

- Member of the ERC Higgs@LHC since 2012
- Member of the European Union **FP7 ITN INVISIBLES** (Marie Curie Actions, PITN-GA-2011- 289442) since 2012
- The French representant of the spanish MICINNs Consolider-Ingenio 2010 programme under grant Multi-Dark **CSD2009-00064**
- Organizer of the " **Magic Monday Journal Club**" which meet researchers from South Paris every monday since October 2010 :

http://www.ymambrini.com/My_World/MMJC.html

- Member of the "African Institute for Mathematical Science" (AIMS), giving lectures each year in Senegal since 2010
- Member of the scientific advisory board of the "Fondation Projet Grandes Ecole" since 2014
- **PI coordinator** in Paris of the ANR TAPDMS **ANR-09-JCJC-0146** between 2009 and 2013
- Member of the Spanish project "Astroparticles in the Universe", FPA2009-08958, 2010-2012

- Coordinator in Paris of the European network PICASSO PAI10825VF between 2005 and 2007
- **PI coordinator** in Paris of the CNRS/CSIC project numero 22242 (2008)
- Local co-coordinator of the european hepTOOLS Research Training Network MRTN-CT-2006-035505
- Organizer of the Seminar of LPT Orsay from 2006 to 2010
- Organizer of the 'Journée Jeunes Chercheurs' in 2009
- Active member of the French ANR project PHYSatCOLandCOS under the number NT05-1-43598
- Member of the Spanish project "Astroparticles in the Universe: Dark Matter, Neutrinos and Cosmic Rays", FPA2006-01105, 2007-2009
- Member of the ILIAS ENTApP/N6 under contract number RII3-CT-2004-506222 from 2005 to 2008
- Member of the European Union RTN program MRTN-CT-2004-503369 from 2008 to 2011
- **Referee** for the reviews JCAP ($\simeq 2$ articles per year), JHEP ($\simeq 3$ articles per year), PRD ($\simeq 2$ articles per year) European Journal of Physics ($\simeq 2$ articles per year) and Physics Letter B ($\simeq 1$ article per year)

PUBLICATIONS [74]

- M. A. G. Garcia, Y. Mambrini, K. A. Olive and M. Peloso, “Enhancement of the Dark Matter Abundance Before Reheating: Applications to Gravitino Dark Matter,” arXiv:1709.01549 [hep-ph].
- S. M. Choi, Y. Hochberg, E. Kuflik, H. M. Lee, Y. Mambrini, H. Murayama and M. Pierre, “Vector SIMP dark matter,” arXiv:1707.01434 [hep-ph].
- G. Arcadi, P. Ghosh, Y. Mambrini, M. Pierre and F. S. Queiroz, “ Z' portal to Chern-Simons Dark Matter,” arXiv:1706.04198 [hep-ph].
- E. Dudas, Y. Mambrini and K. Olive, “Case for an EeV Gravitino,” Phys. Rev. Lett. **119** (2017) no.5, 051801 doi:10.1103/PhysRevLett.119.051801 [arXiv:1704.03008 [hep-ph]].
- G. Arcadi, M. Lindner, Y. Mambrini, M. Pierre and F. S. Queiroz, “GUT Models at Current and Future Hadron Colliders and Implications to Dark Matter Searches,” Phys. Lett. B [arXiv:1704.02328 [hep-ph]].
- G. Arcadi, M. Dutra, P. Ghosh, M. Lindner, Y. Mambrini, M. Pierre, S. Profumo and F. S. Queiroz, “The Waning of the WIMP? A Review of Models, Searches, and Constraints,” arXiv:1703.07364 [hep-ph].
- K. Benakli, Y. Chen, E. Dudas and Y. Mambrini, “Minimal model of gravitino dark matter,” Phys. Rev. D **95** (2017) no.9, 095002 [arXiv:1701.06574 [hep-ph]].
- A. Alves, G. Arcadi, Y. Mambrini, S. Profumo and F. S. Queiroz, “Augury of darkness: the low-mass dark Z^2 portal,” JHEP **1704** (2017) 164 [arXiv:1612.07282 [hep-ph]].
- G. Arcadi, C. Gross, O. Lebedev, Y. Mambrini, S. Pokorski and T. Toma, “Multicomponent Dark Matter from Gauge Symmetry,” JHEP **1612** (2016) 081 [arXiv:1611.00365 [hep-ph]].
- G. Arcadi, P. Ghosh, Y. Mambrini and M. Pierre, “Scrutinizing a di-photon resonance at the LHC through Moscow zero,” JCAP **1611** (2016) no.11, 054 [arXiv:1608.04755 [hep-ph]].
- G. Arcadi, P. Ghosh, Y. Mambrini and M. Pierre, “Re-opening dark matter windows compatible with a diphoton excess,” JCAP **1607** (2016) no.07, 005 [arXiv:1603.05601 [hep-ph]].
- Y. Mambrini, N. Nagata, K. A. Olive and J. Zheng, “Vacuum Stability and Radiative Electroweak Symmetry Breaking in an SO(10) Dark Matter Model,” Phys. Rev. D **93** (2016) no.11, 111703 [arXiv:1602.05583 [hep-ph]].

- Y. Mambrini, G. Arcadi and A. Djouadi, “The LHC diphoton resonance and dark matter,” *Phys. Lett. B* **755** (2016) 426 [arXiv:1512.04913 [hep-ph]].
- Y. Mambrini, S. Profumo and F. S. Queiroz, “Dark Matter and Global Symmetries,” arXiv:1508.06635 [hep-ph].
- Y. Mambrini and T. Toma, “X-ray lines and self-interacting dark matter,” *Eur. Phys. J. C* **75** (2015) 12, 570 [arXiv:1506.02032 [hep-ph]].
- C. Gross, O. Lebedev and Y. Mambrini, “Non-Abelian gauge fields as dark matter,” *JHEP* **1508** (2015) 158 doi:10.1007/JHEP08(2015)158 [arXiv:1505.07480 [hep-ph]].
- G. Moortgat-Pick *et al.*, “Physics at the e+ e- Linear Collider,” *Eur. Phys. J. C* **75** (2015) 8, 371 doi:10.1140/epjc/s10052-015-3511-9 [arXiv:1504.01726 [hep-ph]].
- Y. Mambrini, N. Nagata, K. A. Olive, J. Quevillon and J. Zheng, “Dark Matter and Gauge Coupling Unification in Non-supersymmetric SO(10) Grand Unified Models,” *Phys. Rev. D* **91** (2015) 095010 [arXiv:1502.06929 [hep-ph]].
- E. Dudas, Y. Mambrini and K. A. Olive, “Monochromatic neutrinos generated by dark matter and the seesaw mechanism,” *Phys. Rev. D* **91** (2015) 7, 075001 [arXiv:1412.3459 [hep-ph]].
- G. Arcadi, Y. Mambrini and F. Richard, “Z-portal dark matter,” *JCAP* **1503** (2015) 018 [arXiv:1411.2985 [hep-ph]].
- F. Richard, G. Arcadi and Y. Mambrini, “Searching for dark matter at colliders,” *Eur. Phys. J. C* **75** (2015) 4, 171 [arXiv:1411.0088 [hep-ex]].
- E. Dudas, L. Heurtier and Y. Mambrini, “Generating X-ray lines from annihilating dark matter,” *Phys. Rev. D* **90** (2014) 035002 [arXiv:1404.1927 [hep-ph]].
- O. Lebedev and Y. Mambrini, “Axial Dark Matter: the case for an invisible Z' ,” *Phys. Lett. B* **734** (2014) 350 [arXiv:1403.4837 [hep-ph]].
- G. Arcadi, Y. Mambrini, M. H. G. Tytgat and B. Zaldivar, “Invisible Z' and dark matter: LHC vs LUX constraints,” *JHEP* **1403** (2014) 134 [arXiv:1401.0221 [hep-ph]].
- G. A. Gomez-Vargas, M. A. Sanchez-Conde, J. H. Huh, M. Peir, F. Prada, A. Morselli, A. Klypin and D. G. Cerdeo *et al.*, “Constraints on WIMP annihilation for contracted dark matter in the inner Galaxy with the Fermi-LAT,” *JCAP* **1310** (2013) 029 [arXiv:1308.3515 [astro-ph.HE]].
- E. Dudas, L. Heurtier, Y. Mambrini and B. Zaldivar, “Extra U(1), effective operators, anomalies and dark matter,” *JHEP* **1311** (2013) 083 [arXiv:1307.0005 [hep-ph]].

- X. Chu, Y. Mambrini, J. Quevillon and B. Zaldivar, “Thermal and non-thermal production of dark matter via Z' -portal(s),” *JCAP* **1401** (2014) 034 [arXiv:1306.4677 [hep-ph]].
- F. Domingo, O. Lebedev, Y. Mambrini, Jrm. Quevillon and A. Ringwald, “More on the Hypercharge Portal into the Dark Sector,” *JHEP* **1309** (2013) 020 [arXiv:1305.6815 [hep-ph]].
- Y. Mambrini, K. A. Olive, J. Quevillon and B. Zaldivar, “Gauge Coupling Unification and Non-Equilibrium Thermal Dark Matter,” *Phys. Rev. Lett.* **110** (2013) 241306 [arXiv:1302.4438 [hep-ph]].
- Emilian Dudas, Andrei Linde, Yann Mambrini, Azar Mustafayev, and Keith A. Olive, ”Strong moduli stabilization and phenomenology”, *Eur. Phys. J. C* **73** (2013) 2268 [arXiv:1209.0499 [hep-ph]].
- Y. Mambrini, M. H. G. Tytgat, G. Zaharijas and B. Zaldivar, “Complementarity of Galactic radio and collider data in constraining WIMP dark matter models,” *JCAP* **1211** (2012) 038 [arXiv:1206.2352 [hep-ph]].
- E. Dudas, Y. Mambrini, A. Mustafayev and K. A. Olive, “Relating the CMSSM and SUGRA models with GUT scale and Super-GUT scale Supersymmetry Breaking,” *Eur. Phys. J. C* **72** (2012) 2138 [arXiv:1205.5988 [hep-ph]].
- A. Djouadi, A. Falkowski, Y. Mambrini and J. Quevillon, “Direct detection of Higgs-portal dark matter at the LHC,” arXiv:1205.3169 [hep-ph].
- E. Dudas, Y. Mambrini, S. Pokorski and A. Romagnoni, “Extra $U(1)$ as natural source of a monochromatic gamma ray line,” *JHEP* **1210** (2012) 123 [arXiv:1205.1520 [hep-ph]].
- A. Djouadi, O. Lebedev, Y. Mambrini and J. Quevillon, “Implications of LHC searches for Higgs–portal dark matter,” *Phys. Lett. B* **709** (2012) 65 [arXiv:1112.3299 [hep-ph]].
- O. Lebedev, H. M. Lee and Y. Mambrini, “Vector Higgs-portal dark matter and the invisible Higgs,” *Phys. Lett. B* **707** (2012) 570 [arXiv:1111.4482 [hep-ph]].
- A. Linde, Y. Mambrini and K. A. Olive, “Supersymmetry Breaking due to Moduli Stabilization in String Theory,” *Phys. Rev. D* **85** (2012) 066005 [arXiv:1111.1465 [hep-th]].
- Y. Mambrini, “Higgs searches and singlet scalar dark matter: Combined constraints from XENON 100 and the LHC,” *Phys. Rev. D* **84** (2011) 115017 [arXiv:1108.0671 [hep-ph]].
- Y. Mambrini and B. Zaldivar, “When LEP and Tevatron combined with WMAP and XENON100 shed light on the nature of Dark Matter,” *JCAP* **1110** (2011) 023 [arXiv:1106.4819 [hep-ph]].

- Y. Mambrini, “The ZZ’ kinetic mixing in the light of the recent direct and indirect dark matter searches,” *JCAP* **1107** (2011) 009. [arXiv:1104.4799 [hep-ph]].
- Y. Mambrini, “Specific Dark Matter signatures from hidden U(1),” *PoS QFTHEP2010* (2010) 027. [arXiv:1012.0447 [hep-ph]].
- D. Das, A. Goudelis and Y. Mambrini, “Exploring SUSY light Higgs boson scenarios via dark matter experiments,” *JCAP* **1012** (2010) 018 [arXiv:1007.4812 [hep-ph]].
- Y. Mambrini, “The kinetic dark-mixing in the light of CoGENT and XENON100,” *JCAP* **1009** (2010) 022 [arXiv:1006.3318 [hep-ph]].
- A. Goudelis, Y. Mambrini, C. Yaguna “ Antimatter signals of singlet scalar dark matter,” *JCAP* **0912** (2009) 008, arXiv:0909.2799 [hep-ph].
- D.G. Cerdeno, Y. Mambrini, A. Romagnoni, “Gravitino dark matter in hybrid gauge-gravity models,” *JHEP* **0911** (2009) 113, arXiv:0907.4985 [hep-ph].
- Y. Mambrini, “A Clear Dark Matter gamma ray line generated by the Green-Schwarz mechanism,” *JCAP* **0912** (2009) 005, arXiv:0907.2918 [hep-ph].
- E. Dudas, Y. Mambrini, S. Pokorski, A. Romagnoni, “(In)visible Z’ and dark matter,” *JHEP* **0908** (2009) 014, arXiv:0904.1745 [hep-ph].
- E. Dudas, Y. Mambrini, S. Pokorski, A. Romagnoni and M. Trapletti, “Gauge vs. Gravity mediation in models with anomalous U(1)’s,” *JHEP* **0903** (2009) 011, arXiv:0809.5064 [hep-th].
- N. Bernal, A. Goudelis, Y. Mambrini and C. Munoz, “Determining the WIMP mass using the complementarity between direct and indirect searches and the ILC,” *JHEP* **0901** (2009) 046, arXiv:0804.1976 [hep-ph].
- E. Dudas, Y. Mambrini, S. Pokorski and A. Romagnoni, “Moduli stabilization with Fayet-Iliopoulos uplift,” *JHEP* **0804** (2008) 015 [arXiv:0711.4934 [hep-th]].
- L. Calibbi, Y. Mambrini and S. K. Vempati, “SUSY-GUTs, SUSY-seesaw and the neutralino dark matter,” *JHEP* **0709** (2007) 081 arXiv:0704.3518 [hep-ph].
- O. Lebedev, V. Lowen, Y. Mambrini, H. P. Nilles and M. Ratz, “Metastable vacua in flux compactifications and their phenomenology,” *JHEP* **0702** (2007) 063 [arXiv:hep-ph/0612035].
- A. Djouadi, Y. Mambrini, “The Higgs intense-coupling regime in constrained SUSY models and its astrophysical implications”, *JHEP* **0612** (2006) 001 [arXiv:hep-ph/0609234].

- Y. Mambrini, C. Munoz and E. Nezri, “GLAST versus PAMELA: A comparison between the detection of gamma rays and positrons from neutralino annihilation,” *JCAP* **0612** (2006) 003 [arXiv:hep-ph/0607266].
- E. Dudas, Y. Mambrini, “Moduli stabilization with positive vacuum energy”, *JHEP* **10** (2006) 044, [arXiv:hep-th/0607077].
- Y. Mambrini and E. Nezri, “Dark matter and colliders searches in the MSSM,” *Eur. Phys. J. C* **50** (2007) 949 [arXiv:hep-ph/0507263].
- A. Falkowski, O. Lebedev and Y. Mambrini, “SUSY phenomenology of KKLT flux compactifications”, *JHEP* **0511** (2005) 034 [arXiv:hep-ph/0507110].
- Y. Mambrini, C. Munoz, E. Nezri and F. Prada, “Adiabatic compression and indirect detection of supersymmetric dark matter,” *JCAP* **0601** (2006) 010 [arXiv:hep-ph/0506204].
- Y. Mambrini and C. Munoz, “A comparison between direct and indirect dark matter search,” *JCAP* **0410** (2004) 003 [arXiv:hep-ph/0407352].
- Y. Mambrini and C. Munoz, “Gamma-ray detection from neutralino annihilation in non-universal SUGRA scenarios,” *Astropart. Phys.* **24** (2005) 208 [arXiv:hep-ph/0407158].
- G. Bertone, P. Binetruy, Y. Mambrini and E. Nezri, “Annihilation radiation of dark matter in heterotic orbifold models,” *Astropart. Phys.* **24** (2005) 44 [arXiv:hep-ph/0406083].
- P. Binetruy, Y. Mambrini and E. Nezri, “Direct and indirect detection of dark matter in heterotic orbifold models,” *Astropart. Phys.* **22** (2004) 1 [arXiv:hep-ph/0312155].
- M. Muhlleitner, A. Djouadi and Y. Mambrini, “SDECAY: A Fortran code for the decays of the supersymmetric particles in the MSSM,” *Comput. Phys. Commun.* **168** (2005) 46 [arXiv:hep-ph/0311167].
- P. Binetruy, A. Birkedal-Hansen, Y. Mambrini and B. D. Nelson, “Phenomenological aspects of heterotic orbifold models at one loop,” *Eur. Phys. J. C* **47** (2006) 481 [arXiv:hep-ph/0308047].
- Y. Mambrini and G. Moulhaka, “Infrared quasi fixed point structure in extended Yukawa sectors and application to R-parity violation,” *Phys. Rev. D* **65** (2002) 115011 [arXiv:hep-ph/0112353].
- A. Datta, A. Djouadi, M. Guchait and Y. Mambrini, “Charged Higgs production from SUSY particle cascade decays at the LHC,” *Phys. Rev. D* **65** (2002) 015007 [arXiv:hep-ph/0107271].

- A. Djouadi, M. Guchait and Y. Mambrini, “Scalar top quarks at the Run II of the Tevatron in the high $\tan(\beta)$ regime,” *Phys. Rev. D* **64** (2001) 095014 [arXiv:hep-ph/0105108].
- A. Djouadi, Y. Mambrini and M. Muhlleitner, “Chargino and neutralino decays revisited,” *Eur. Phys. J. C* **20** (2001) 563 [arXiv:hep-ph/0104115].
- Y. Mambrini and G. Moultaka, “Comment on ‘Infrared fixed point structure in minimal supersymmetric standard model with baryon and lepton number violation’,” *Phys. Rev. D* **65** (2002) 058901 [arXiv:hep-ph/0103270].
- Y. Mambrini, G. Moultaka and M. Rausch de Traubenberg, “General one-loop renormalization group evolutions and electroweak symmetry breaking in the (M+1)SSM,” *Nucl. Phys. B* **609** (2001) 83 [arXiv:hep-ph/0101237].
- A. Djouadi and Y. Mambrini, “Three-body decays of top and bottom squarks,” *Phys. Rev. D* **63** (2001) 115005 [arXiv:hep-ph/0011364].
- A. Djouadi and Y. Mambrini, “Three-body decays of SUSY particles,” *Phys. Lett. B* **493** (2000) 120 [arXiv:hep-ph/0007174].
- C. Boehm, A. Djouadi and Y. Mambrini, “Decays of the lightest top squark,” *Phys. Rev. D* **61** (2000) 095006 [arXiv:hep-ph/9907428].

PROCEEDINGS

- G. Arcadi, Y. Mambrini and M. Pierre, “Impact of Dark Matter Direct and Indirect Detection on Simplified Dark Matter Models,” arXiv:1510.02297 [hep-ph].
- Y. Mambrini, “Higgs portal and Dark Matter,” PoS DSU **2012** (2012) 011.
- Y. Mambrini, “Invisible Higgs and scalar dark matter,” Rom. J. Phys. **57** (2012) 901.
- Y. Mambrini, “Invisible Higgs and Scalar Dark Matter,” arXiv:1112.0011 [hep-ph].
- Y. Mambrini, “Z-prime and dark matter,” J. Phys. Conf. Ser. **315** (2011) 012014.
- **Dark matter: What, how and where?** Y. Mambrini, (Orsay, LPT) . 2010. 22pp. Published in Acta Phys.Polon.B41:1395-1416,2010.
- **Dark matter annihilation into gamma-ray line generated by anomalies.** Y. Mambrini, (Orsay, LPT) . Sep 2009. 6pp. To appear in the proceedings of 5th International Workshop on the Dark Side of the Universe (DSU09), Melbourne, Victoria, Australia, 1-5 Jun 2009. e-Print: arXiv:0909.5055 [hep-ph]
- **Complementarity between direct and indirect searches of dark matter and the ILC.** Yann Mambrini, (Orsay, LPTMS) . 2009. 8pp. Prepared for 4th International Workshop on the Dark Side of the Universe (DSU 2008), Cairo, Egypt, 1-5 Jun 2008. Published in AIP Conf.Proc.1115:347-354,2009.
- **Distinguishing SUSY scenarios using τ polarisation and χ_1^0 Dark Matter,** LCWS/ILC 2007, [arXiv:0710.0726 (hep-ph)].
- **A comparison between the detection of gamma rays and positrons in supersymmetric models,** AIP Conf. Proc. **878** (2006) 53.
- **Gamma-ray excess from the galactic center and supergravity models,** J. Phys. Conf. Ser. **39** (2006) 170.
- **Signals from galactic center and supergravity models,** Contributed to 41st Rencontres de Moriond on Electroweak Interactions and Unified Theories, La Thuile, Aosta Valley, Italy, 11-18 Mar 2006. arXiv:hep-ph/0606180.
- **Gamma-ray excess from the galactic center and supergravity models** *To appear in the proceedings of 11th International Symposium on Particles, Strings and Cosmology (PASCOS 2005), Gyeongju, Korea, 30 May - 4 Jun 2005. e-Print Archive: hep-ph/0509300*

- **Astroparticle and collider physics as complementary sources for the study of string motivated supergravity models.** *To appear in the proceedings of 2005 International Linear Collider Workshop (LCWS 2005), Stanford, California, 18-22 Mar 2005. e-Print Archive: hep-ph/0507154*
- **Phenomenology of heterotic effective models at one loop.** *Published in *STRING PHENO03, DURHAM e-Print Archive: hep-ph/0311291*
- **Studies of charged Higgs boson signals for the Tevatron and the LHC.** *Published in *Les Houches 2001, Physics at TeV colliders* 85-120*
- **The Beyond Standard Model Working Group : Summary report.** *Published in *Les Houches 2001, Physics at TeV colliders* 121-273 e-Print Archive: hep-ph/0204031*
- **The Higgs Working Group : Summary report.** *Published in *Les Houches 2001, Physics at TeV colliders* 1-120 e-Print Archive: hep-ph/0203056*
- **Higher order decays of the lightest top squark.,** *5th Workshop of the 2nd ECFA - DESY Study on Physics and Detectors*
- **The Minimal Supersymmetric Standard Model : Group summary report.,** *Talk given at the GDR (Groupement de Recherche) - Supersymetrie, Montpellier, France, 15-17 Apr 1998.; hep-ph/9901246*
- **The Parameters of the MSSM.,** *Proceeding of the talk given at the RJC99, Montpellier, France, 15-18 December 1999.*
- **Decays of the stop.,** *Proceeding of the talk given at the RJC98, Grasse, France, 15-18 December 1998.*

SEMINARS, TALKS (1997-2015)

For a complete list of the seminars, with the .pdf and keynote files from 2016 till now, see

http://www.ynambrini.com/My_World/Conference.html

December 2015 "Modelling Dark Matter in 2015", **Invited talk Dark Side of the Universe conference**, Tokyo, Japan.

November 2015 "Modelling Dark Matter", **Invited review talk joint IBS/Multidark workshop**, Madrid, Spain.

October 2015 "Dark matter: a phenomenologist point of view", **Invited seminar university Roma 2 (Tor Vergata)**, Roma, Italy.

June 2015 "Mev scale dark matter", **Invited speaker at the annual workshop "Heavy Photon Searches" (HPS)**, Orsay, France.

May 2015 "Particle physics models and dark matter searches", **Invited leading discussion at the workshop "Identification of Dark Matter with a cross-disciplinary approach"**, Madrid, Spain.

April 2015 "Dark matter in Grand Unified models: the case for SO(10)", **Invited seminar, Lomonosov University**, Moscow, Russia.

March 2015 "SO(10) and dark matter", **Invited plenary talk, GDR Terascale Saclay**, Paris, France.

March 2015 "MeV dark matter detection", **Invited plenary talk, workshop ASTROGAM**, Paris, France.

December 2014 "Une histoire de l'Univers", **Invited seminar, Hotel Langsdorff, Fondation de France**, Paris, France.

December 2014 "2014, a year of dark matter signals and models", **Invited seminar**, **Lomonosov University**, Moscow, Russia.

November 2014 "Modeling DM signals in 2014", **Invited talk**, **DSU 2014**, Cape Town, South Africa.

November 2014 "2014, a year of DM signals and models", **Invited seminar**, **University of Minnesota**, Minneapolis, USA.

November 2014 "The DM status in 2014: from signals to models", **Invited seminar**, **IPN**, Paris, France.

October 2014 "Models and signals of DM, 2014 statu-quo", **Invited seminar**, **KIAS**, Seoul, Korea.

October 2014 "2014, a year of DM "signals", **Invited talk**, **"IBS-Multidark" workshop**, **IBS**, Daejeon, Korea.

September 2014 "Status of DM searches and models in 2014", **Invited talk**, **"Physics challenges in the face of LHC-14"**, **IFT**, Madrid, Spain.

August 2014 "Dark matter searches after the Run I of the LHC", **Invited lectures**, **"LC school"**, **Chiemsee**, Frauchimesssee, Germany.

July 2014 "2014, what should we learn?", **Invited leading discussion**, **workshop "Invisible"**, **Institut des Cordeliers**, Paris, France.

July 2014 "Status of Indirect detection of Dark Matter", **Invited leading discussion**, **Workshop "Probing the TeV scale and Beyond"**, **Mainz Institute**, Mainz, Germany.

June 2014 "Status of DM in 2014", **Invited talk**, **"DM thematic day"**, **IAP**, Paris, France.

June 2014 "MicroMegs and DM searches", **Invited talk**, **"ISA Russian-French" meeting**, Krasnodar, Russia.

June 2014 "Modeling the The 3.5 keV line", **Invited talk**, **"Chalonge School"**, **Observatoire de Paris**, Paris, France.

May 2014 "Finding an invisible Z' at LHC", **Invited talk, Planck Conference**, Paris, France.

May 2014 "Z'-portal and dark matter", **Invited talk, Vulcano Workshop, Vulcano Island**, Sicilia, Italy.

April 2014 "Dark matter searches after the Run I of the LHC", **Invited lecture, Workshop "BSM physics at LHC"**, **University of Warsaw**, Warsaw, Poland.

February 2014 "Recent developments in Dark Matter phenomenology", **Invited seminar, University of Sussex**, Brighton, England.

February 2014 "Recent developments in Dark Matter searches", **Invited seminar, University of Helsinki**, Helsinki, Finland.

November 2013 "Dark matter prospects at ILC", **Invited talk in the conference "Journée accélérateur linéaire"**, CEA, Paris, France.

November 2013 "Dark matter status in 2013", **Invited seminar in Orsay cosmological group**, LPT, Orsay, France.

October 2013 "Z' anomalous couplings and dark matter", **Talk conference Dark Side of the Universe**, Trieste, Italy.

October 2013 "Z' and Dark Matter", **Invited talk conference "Gamma-ray in the sky"**, Minneapolis, USA.

October 2013 "Aspects of dark matter phenomenology and recent developments", **Invited Seminar Minneapolis University, USA**,

September 2013 "Alternative thermal scenario and extra U(1) ", **Invited seminar, University of Irvine, USA**,

May 2013 "Aspects of dark matter phenomenology", **Seminar Moscow State University**, Moscow, Russia.

May 2013 "Alternative cosmological scenario", **Invited talk 3d workshop on String theory, Gravity and Fields**, Buenos-Aires, Argentina.

February 2013 "Monochromatic gamma ray line: observation and modeling", **Invited talk IPP Teheran, 4th of May 2013**, Webconference.

April 2013 "Dark matter and Higgs searches", **Seminar TUW, April 24th**, Vienna, Austria.

April 2013 "Models of dark matter", **Invited talk EPNT13 workshop, April 3d 2013 University of Luminy**, Marseille, France.

April 2013 "A thermal history of the Universe", **AIMS Senegal Lecture**, M'bour, Senegal.

March 2013 "Gamma-ray line and dark matter", **Invited Seminar Warsaw**, Warsaw, Poland.

February 2013 "Monochromatic gamma ray line: observation and modeling", **Invited talk HAL2013**, Munster, Germany.

December 2012 "Monochromatic gamma ray line: observation and modeling", **AIMS seminar, November 30th 2012**, Capetown, South Africa.

October 2012 "Gamma-ray line and dark matter : signals and models", **Invited talk Frontiers 2012**, Minneapolis, USA.

June 2012 "Gamma-ray line and dark matter", **Talk DSU2012, Rio de Janeiro, 2 June 2012**, Rio, Brazil.

May 2012 "Recent developments in Dark Matter searches", **Invited seminar, IFT, 9th May 2012**, Padova, Italy.

February 2012 "Dark matter, candidates, signals and LHC consequences ", **Seminar, LAL, 21th february 2012**, Orsay, France.

February 2012 "Phenomenological aspects of Dark Matter", **Invited Seminar, MSU, 8th february 2012**, Moscow, Russia.

November 2011 "Dark matter candidates", **Invited talk Particle Workshop, Amsterdam, 14th November 2011**, Amsterdam, Netherland.

October 2011 "Dark Matter in the Universe", **Lecture, 3d Marguele HEP workshop, 28th October 2011**, Bucarest, Romania.

September 2011 "Dark matter and Invisible Higgs", **talk DSU conference, Beijing, 28th September 2011**, Beijing, China.

September 2011 "Dark matter and Higgs portal", **Invited talk TAUP conference, DESY, 7th September 2011**, Munchen, Germany.

August 2011 "Dark matter and Extra U(1)", **Invited talk Balkanic Workshop, 28th August 2011**, Serbia.

June 2011 "Dark matter in supergravity constructions", **prestring workshop, 8th June 2011**, Stockholm, Sweden.

May 2011 "Dark matter in portal-like models", **Invited Theory Seminar, 31th May 2011**, Heidelberg, Germany.

April 2011 "Dark matter aspects and specific signatures of Extra U(1)", **Invited Theory Seminar, DESY, 26th April 2011**, Hamburg, Germany.

April 2011 "Dark matter aspects and specific signatures of Extra U(1)", **Multidark Workshop, UAM, 5th April 2011**, Madrid, Spain.

March 2011 "Recent developments in Dark Matter searches", **Seminar Bogoliubov Institute, 17th March 2011**, Kiev, Ukraine.

January 2011 "Dark matter aspects of Extra U(1)", **Invited talk to the Dark Matter Workshop at Saha Institute, 4 - 8 Jan 2011**, Kolkata, India.

October 2010 "A thermal history of the Universe", **Invited lecture given at the Third High Energy Physics School in Magurele, 21-22 October 2010**, Bucarest, Romania.

September 2010 "Phenomenology of Dark Matter", **Invited Seminar, Trieste, Italy.**

September 2010 "Phenomenological aspects of Dark Matter", **Invited Talk QFTHEP 2010, Moscow, Russia.**

July 2010 "The Status of Dark Matter", **Invited speaker, String Pheno 2010 conference**, Paris, France.

June 2010 "Kinetic mixing and Dark Matter", **DSU 2010 conference**, Guanajuato, Mexico.

April 2010 "Dark Matter Phenomenology, **Invited Seminar, Oskar Klein Institute**, Stockholm, Sweden.

March 2010 "Dark Matter and Physics Beyond Standard Model", **Invited seminar, U. Torre Vergata**, Roma, Italy.

January 2010 "Anomalies and indirect detection of Dark Matter", **MULTIDARK meeting**, Madrid, Spain.

January 2010 "Phenomenology of Dark Matter beyond Standard Model", **Invited speaker at the Krakow Epiphany Conference**, Krakow, Poland.

July 2009 "String phenomenology", **Invited talk ATLAS France annual meeting**, Evian, France.

July 2009 "Dark matter annihilation into gamma-ray line generated by anomalies", **PAS-COS09, DESY**, Hamburg, Germany.

July 2009 "Dark matter annihilation into gamma-ray line generated by anomalies", **TAUP09**, Roma, Italy.

June 2009 "gamma-ray line generated by the Green-Schwarz mechanism", **Invited speaker at DSU09 Conference**, Melbourne, Australia.

January 2009 "Phenomenology of (String inspired) Supergravity Models", **Invited speaker in the Theory group of DESY**, Hamburg, Germany.

October 2008 "Uplift and Phenomenology of Supergravity Models", **Invited speaker in the Theory group of UAM**, Madrid, Spain.

June 2008 "Precision measurements in Dark Matter experiments", **Invited speaker in the Theory group of Granada**, Granada, Spain.

May 2008 "Precision measurements using complementarity between Dark Matter experiments and ILC", **Invited speaker in the Dark Side of the Universe Conference 2008**, Cairo, Egypt.

January 2008 "Dark matter aspects of SUGRA models", **Invited speaker in the X WHEPP conference**, Chennai, India.

December 2007 "Phenomenology of KKLT-like models", **Invited speaker in the Theory group of Warsaw**, Warsaw, Poland.

September 2007 "Dark matter aspects of SUSY-SO(10) models", **ENTApP Workshop on Dark Matter**, Huelva, Spain.

June 2007 "Dark Matter aspects of string inspired supergravity models", **Invited speaker in the Theory group of Bonn**, Bonn, Germany.

June 2007 "SUSY-GUTs, SUSY see-saw and the neutralino Dark Matter", **Invited speaker in the Dark Side of the Universe Conference 2007**, Minneapolis, USA.

September 2006 "A comparison between positrons and gamma indirect detection in SUGRA models", **Invited speaker in the second French-Sino Workshop on the Dark Universe**, Beijing, China.

August 2006 "KKLT Phenomenology", **Talk at ICHEPP06**, Moscow, Russia.

June 2006 "A comparison between positrons and gamma indirect detection in SUGRA models", **Invited speaker in the Dark Side of the Universe Conference 2006**, Madrid, Spain.

March 2006 "Phenomenology and Dark Matter aspects of string inspired constructions", **Invited seminar in the Theory Group of Liverpool**, Liverpool, Great-Britain.

December 2005 "Moduli Stabilization and Phenomenology of String Inspired Supergravity Models", **Seminar in the Theory group of the ULB**, Bruxelles, Belgium.

November 2005 "SUSY Phenomenology of KKLT Flux Compactification", **SUSY EuroGDR meeting**, Barcelona, Spain.

November 2005 "Indirect Detection of Supersymmetric Dark Matter from the Galactic Center", **SUSY EuroGDR meeting**, Barcelona, Spain.

October 2005 "Indirect Detection of Supersymmetric Dark Matter versus Direct Detection", **ENTApP Workshop on Dark Matter**, Trieste, Italy.

September 2005 "Galactic Center Signals : Compressed Dark Matter Halos and SUSY Models", **9th Int. Conf. on Topics in Astroparticle And Underground Physics - TAUP05**, Zaragoza, Spain.

September 2005 "Galactic Center Signals : Compressed Dark Matter Halos and SUSY Models", **9th Int. Conf. on Topics in Astroparticle And Underground Physics - TAUP05**, Zaragoza, Spain.

June 2005 "Gamma-Ray Excess from the Galactic Center and Supergravity Models", **PAS-COS meeting**, Gyeongju, Korea.

May 2005 "Galactic Center Signals : Compressed DM Halos and SUSY models", **KIAS-APCTP-DMRC Workshop on "The Dark Side of the Universe"**, KIAS, Seoul, Korea.

March 2005 "Astroparticle and Collider Physics as complementary sources for the study of string motivated supergravity models", **International Linear Collider Workshop**, Stanford.

January 2005 "Weapons and Strategies to study string models from a phenomenologist point of view.", **DESY, Theory Group Seminar**, Hamburg.

November 2004 "Dark Matter and orbifold heterotic strings.", **EURO-GDR**, Frascati.

July 2004 "Annihilation radiation of dark matter in heterotic orbifold models.", **GDR SUSY 2004**, Clermont-Ferrand.

March 2004 "Strategies and weapons for analysis of (Super)String Models from a particle phenomenologist point of view.", **IFT Madrid**, Madrid.

December 2003 "Phenomenology of heterotic string effective models and AMSB", **EURO-GDR SUSY 2003**, Orsay.

August 2003 "Phenomenological aspects of heterotic models", **String Pheno 2003**, Durham.

June 2003 "Dark Matter aspects of heterotic models" **Planck03**, Madrid.

- April 2003* "Astroparticle aspects in String Theory", **LPT Jussieu**, Paris.
- March 2003* "Recherche experimentale de théories de type corde", **Particule 2003**, Orsay.
- December 2002* "Phenomenological implications of orbifold models" **3rd Euro-GDR SUSY**, Montpellier.
- June 2002* "Fixed point structure in R-parity violation models", **2nd Euro GDR SUSY**, Durham.
- May 2002* "A phenomenological travel in SUSY's world" **LPT**, Orsay.
- November 2001* "Search for the stop quark at the Tevatron", **GDR SUSY**, Lyon.
- November 2001* "Quasi-fixed point structure in Yukawa extended models" **GDR SUSY**, Lyon.
- April 2001* "Decays of SUSY particles", **1st Euro-GDR SUSY**, Aachen.
- January 2001* "Une introduction à la Supersymétrie" **CEA Bruyeres**, Departement de physique théorique.
- December 2000* "A summary of the decays modes in the MSSM" **GDR SUSY**, Ecole Polytechnique, Palaiseau.
- November 2000* "Impact of the non-universality in the NMSSM", **GDR SUSY**, Ecole Polytechnique, Palaiseau.
- June 2000* "The RGE in the NMSSM with non-universality" **GDR SUSY**, LAPTH, Annecy.
- January 2000* "Decays of sparticles" **Particule 2000**, Montpellier.
- December 1999* "The parameters of the MSSM", **RJC99**, Montpellier.
 "Comparisons of generators", **GDR SUSY**, Jussieu, Paris.
 "Decays of Gaugino", **GDR SUSY**, Jussieu, Paris.
- May 1999* "Decays of Squarks" **GDR SUSY**, Marseille.

June 1999 "The accelerators" **Bar des sciences**, Montpellier.

March 1999 "Light and Matter" **Conference pédagogique**, Université Montpellier II.

December 1998 "Decays of Stop" **RJC98**, Grasse.

LEASURE

- Semi-professional **Magician** (close-up, stage and mentalism)
- **Tennis player** in competition
- **Comics drawer** in a local newspaper ("Le Nouvel Impresseur")