

## Sunday, 9th

20:00 Early registration and welcome cocktail at the Nazarías Hotel

## Monday, 10th

08:00 Registration opens

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09:00 - 09:15 Welcome and scope of the meeting, José L. Gómez

### **Jet formation** (Chair: Gabriele Ghisellini)

09:15 - 09:45 "The Role of Magnetic Fields in the Production and Propagation of Relativistic Jets", D. Meier (Review)

09:45 - 10:15 "Relativistic Jet Formation by Spinning Black Holes", A. Tchekhovskoy (Invited)

10:15 - 10:45 "Probing the inner jet of M87; from the jet base to HST-1", K. Hada (I)

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10:45 - 11:15 Coffee break

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11:15 - 11:35 "The first 2-years in the lifetime of the newly born jet associated to Swift J1644+57", A. J. Castro-Tirado

11:35 - 11:55 "The M87 Jet", M. Nakamura

11:55 - 12:15 "JEDs and SADs in X-ray Binaries", J. Ferreira

12:15 - 12:35 "Polarimetric Observations of the Innermost Regions of Relativistic Jets in X-ray Binaries", D. Russell

12:35 - 12:55 "The force-free magnetosphere of a rotating black hole", I. Contopoulos

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12:55 - 15:00 Lunch break

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### **Jet dynamics, structure and stability** (Chair: José-María Martí)

15:00 - 15:30 "The Role of Macroscopic & Microscopic Instabilities in Relativistic Jets", P. Hardee (R)

15:30 - 16:00 "Jet dynamics and stability", M. Perucho (I)

16:00 - 16:20 "Kink instability in relativistic magnetized jets", N. Vlahakis

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16:20 - 16:50 Coffee break

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16:50 - 17:10 "Radiation from relativistic jets from particle accelerated by shocks, shear-flows, and reconnection", K. Nishikawa

17:10 - 17:30 "Current-Driven Kink Instability in Magnetically Dominated Rotating Relativistic Jet", Y. Mizuno

17:30 - 17:50 "Rayleigh-Taylor and Richtmyer-Meshkov Instabilities in Relativistic Hydrodynamic Jets", J. Matsumoto

17:50 - 18:10 "3 dimensional magneto hydrodynamic jet simulations", J. Staff

## Tuesday, 11th

### Emission across the electromagnetic spectrum I (Chair: Jose L. Gómez)

- 09:00 - 09:30 "Multi-waveband Behavior of Blazars", A. Marscher (R)
- 09:30 - 10:00 "The "Far Distance" Scenario for Gamma-ray Emission in Blazars: A View from the VLBI Observing Perspective", I. Agudo (I)
- 10:00 - 10:20 "The Gamma-ray Activity of the high-Z Quasar 0836+710", S. Jorstad
- 10:20 - 10:40 "The radio/gamma-ray connection in Active Galactic Nuclei in the Fermi era", M. Giroletti

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10:40 - 11:10 Coffee break

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- 11:10 - 11:30 "What can we learn from high energy flares in the Fermi sample of FSRQ: from a case study to dozens of objects", L. Pacciani
- 11:30 - 11:50 "The nature of the IR emission in LLAGN at parsec scales: Does the jet dominate at low luminosities?", J. A. Fernández Ontiveros
- 11:50 - 12:10 "Jet evolution in Steep Spectrum Radio Quasars. A multiwavelength study", E. Torresi
- 12:10 - 12:30 "Gamma-Ray variability studies of Misaligned AGN", P. Grandi
- 12:30 - 12:50 "Probing the Radio Counterpart of Gamma-ray Flaring Region in 3C 84", H. Nagai
- 12:50 - 13:10 "On the connection between radio and gamma rays. Variability and polarization properties in relativistic jets", M. Orienti

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13:10 - 15:00 Lunch break

### Jets from stellar-mass objects (Chair: Marcello Giroletti)

- 15:00 - 15:30 "Jets across the black hole mass scale: new insights from X-ray binaries", S. Markoff (R)
- 15:30 - 16:00 "Relativistic stellar jets: dynamics and non-thermal radiation", V. Bosch-Ramon (I)
- 16:00 - 16:20 "Search for new stellar sources of gamma-rays", J. Martí

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16:20 - 16:50 Coffee break

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- 16:50 - 17:10 "Discovery of synchrotron emission from a YSO jet", C. Carrasco González
- 17:10 - 17:30 "Spectra and fast multi-wavelength variability of compact jets powered by internal shocks", J. Malzac
- 17:30 - 17:50 "Doppler-shifted lines revealing baryons in the jets of the X-ray binary 4U 1630-47", S. Migliari
- 17:50 - 18:10 "Magnetic Field Structure in Relativistic Jets", H. Jermak

## Wednesday, 12th

### Emission across the electromagnetic spectrum II (Chair: Svetlana Jorstad)

- 09:00 - 09:30 "Multi-wavelength emission models in blazars", G. Ghisellini (R)  
09:30 - 10:00 "Radio-loud AGN unification: Connecting jets and accretion", E. Meyer (I)  
10:00 - 10:20 "Leptonic and Hadronic Modeling of Fermi-Detected Blazars", M. Boettcher  
10:20 - 10:40 "Constraining the location of gamma-ray emission in Blazar jets", M. Joshi

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10:40 - 11:10 Coffee break

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- 11:10 - 11:30 "An Exceptional Radio Flare in Markarian 421", J. Richards  
11:30 - 11:50 "Time dependent photon and neutrino emission from Mkn421 in the context of the one-zone leptohadronic model", A. Mastichiadis  
11:50 - 12:10 "Panchromatic Observations of the Nuclei of  $z < 0.5$  3CRR Radio Galaxies: Implications for Feeding, Feedback, and Black Hole Spin", D. Evans  
12:10 - 12:30 "Relativistic jets in Narrow-Line Seyfert 1 galaxies. New discoveries and open questions", F. D'Ammando  
12:30 - 12:50 "The origin and emission mechanism of VHE ( $> 100$  GeV) emission from FSRQs", B. Behera  
12:50 - 13:10 "Uncovering the physics behind the blazar sequence using a realistic model for jet emission", W. Potter

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### Free afternoon for social activities (visit to Alhambra)

## Thursday, 13th

### Magnetic fields and jet physics I (Chair: Gabriele Giovannini)

- 09:00 - 09:30 "Magnetic fields and polarization in AGN jets", J. Wardle (R)  
09:30 - 10:00 "Parsec-Scale Polarization and Magnetic Field Characteristics of MOJAVE AGN Jets", M. Lister (I)  
10:00 - 10:20 "Magnetic field in the jet of 3C 454.3", M. Zamaninasab  
10:20 - 10:40 "Probing the magnetic field of 3C279", S. Kiehlmann

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10:40 - 11:10 Coffee break

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- 11:10 - 11:30 "A sensitive study of the peculiar jet structure HST-1 in M87", C. Casadio  
11:30 - 11:50 "Longitudinal and transverse velocity fields in parsec-scale jets", F. Mertens  
11:50 - 12:10 "AGN jet physics and observed apparent opening angles", E. Clausen-Brown  
12:10 - 12:30 "Intrinsic brightness temperatures of blazar jets at 15 GHz", T. Hovatta  
12:30 - 12:50 "Study of High Energy Emission from Relativistic Jets with VERITAS", R. Mukherjee  
12:50 - 13:10 "Hadronic Modeling of AGN Variability", M. Weidinger

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13:10 - 15:00          Lunch break

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## **Magnetic fields and jet physics II** (Chair: John Wardle)

- 15:00 - 15:30    "Multi-wavelength Polarization Studies of AGN Jets", D. Gabuzda (R)  
15:30 - 15:50    "Constraints on Blazar Jet Conditions During Gamma-Ray Flaring from Radiative Transfer Modeling", M. Aller  
15:50 - 16:10    "Recollimation Shock and the Fire Hose in BL Lacertae", M. Cohen  
16:10 - 16:30    "Broadband radio circular polarization observations of the quasar PKS B2126-158", S. O'Sullivan
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16:30 - 17:00          Coffee break

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- 17:00 - 17:20    "A Rotation Measure Gradient on the M87 VLA Jet", J. C. Algaba  
17:20 - 17:40    "Multi-frequency study of the TeV blazar Markarian 421 with VLBA observations", R. Lico  
17:40 - 18:00    "Studies of Blazar emission using a spatially resolved SSC model", S. Richter
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## **Conference dinner at Palacio de los Cordova**

### **Friday, 14th**

#### **AGN Jets** (Chair: Markus Böttcher)

- 09:00 - 09:30    "Space VLB interferometer RadioAstron: early results and future prospects of AGN studies", Y. Kovalev (I)  
09:30 - 10:00    "Quasar large scale jets: Fast and powerful or weak and slow, but efficient accelerators?", M. Georganopoulos (I)  
10:00 - 10:20    "Poynting flux dissipation in jets", J. Kirk  
10:20 - 10:40    "Magnetic field amplification and blazar flares", X. Chen
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10:40 - 11:10          Coffee break

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- 11:10 - 11:30    "The jet of the LLAGN of M81: Evidence of Precession", A. Alberdi  
11:30 - 11:50    "Evidence for internal rotation in the jet of the quasar NRAO150", S. Molina  
11:50 - 12:10    "The core shift measurements for two-sided jets affected by free-free absorption using VLBA", T. Haga  
12:10 - 12:30    "Astrometric observations of the core position changes in Mrk 421 after the large X-ray flare in 2011", K. Niinuma  
12:30 - 12:50    "High-energy signatures of binary supermassive black holes", G. Vila
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12:50 - 13:20    Conference summary by Alan P. Marscher