



**Sistema Integral de Información Académica**  
**Coordinación de Planeación, Evaluación y**  
**Simplificación de la Gestión Institucional**  
**Reporte individual**



**GILBERTO CARLOS GOMEZ REYES**

## Datos Generales

**Nombre:** GILBERTO CARLOS GOMEZ REYES

**Máximo nivel de estudios:** DOCTORADO

**Antigüedad académica en la UNAM:** 20 años

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## Nombramientos

**Vigente:** INVESTIGADOR TITULAR B TC Definitivo  
Instituto de Radioastronomía y Astrofísica  
Desde 16-05-2016

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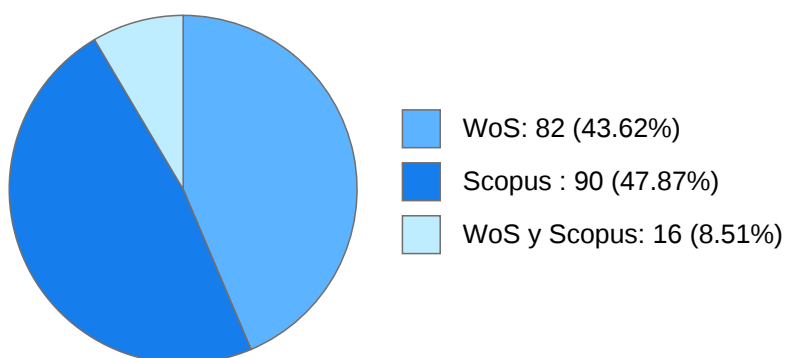
## Estímulos, programas, premios y reconocimientos

SNI II 2014 - VIGENTE  
SNI I 2009 - 2013  
PRIDE C 2012 - 2024  
PRIDE B - 2012

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**DOCUMENTOS EN REVISTAS**

**Histórico de Documentos**



| # | Título                                                                                                                                                                    | Autores                                                                                             | Revista                                                       | Año  |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------|
| 1 | The role of shocks and the velocity gradient in the relative orientation of the magnetic field and dense gas clouds                                                       | ENRIQUE CRISTIAN VAZQUEZ<br>SEMADENI GILBERTO CARLOS GOMEZ<br>REYES Guido Granda-Munoz              | ASTRONOMY &<br>ASTROPHYSICS                                   | 2025 |
| 2 | The ALMA-QUARKS Survey: Detection of Two Extremely Dense Substructures in a Massive Prestellar Core                                                                       | ENRIQUE CRISTIAN VAZQUEZ<br>SEMADENI GILBERTO CARLOS GOMEZ<br>REYES AINA PALAU PUIGVERT et al.      | ASTROPHYSICAL<br>JOURNAL<br>LETTERS                           | 2024 |
| 3 | The ALMA Survey of Star Formation and Evolution in Massive Protoclusters with Blue Profiles (ASSEMBLE): Core Growth, Cluster Contraction, and Primordial Mass Segregation | AINA PALAU PUIGVERT GILBERTO<br>CARLOS GOMEZ REYES ENRIQUE<br>CRISTIAN VAZQUEZ SEMADENI et al.      | ASTROPHYSICAL<br>JOURNAL<br>SUPPLEMENT<br>SERIES              | 2024 |
| 4 | Multiscale accretion in dense cloud cores and the delayed formation of massive stars                                                                                      | ENRIQUE CRISTIAN VAZQUEZ<br>SEMADENI GILBERTO CARLOS GOMEZ<br>REYES ALEJANDRO GONZALEZ<br>SAMANIEGO | MONTHLY<br>NOTICES OF THE<br>ROYAL<br>ASTRONOMICAL<br>SOCIETY | 2024 |
| 5 | ATOMS: ALMA three-millimetre observations of massive star-forming regions?XVII. High-mass star-formation through a large-scale collapse in IRAS 15394-5358                | ENRIQUE CRISTIAN VAZQUEZ<br>SEMADENI GILBERTO CARLOS GOMEZ<br>REYES AINA PALAU PUIGVERT et al.      | MONTHLY<br>NOTICES OF THE<br>ROYAL<br>ASTRONOMICAL<br>SOCIETY | 2024 |

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| 6  | Gas dynamics in the central molecular zone and its connection with the galactic bar                                                                                         | GILBERTO CARLOS GOMEZ REYES<br>MARIA DE LOS ANGELES PEREZ<br>VILLEGAS Leonardo<br>Chaves-Velasquez | PUBLICATIONS OF THE ASTRONOMICAL SOCIETY OF AUSTRALIA | 2024 |
| 7  | Diminishing benefits of urban living for children and adolescents? growth and development                                                                                   | BENJAMIN ACOSTA CAZARES<br>CARLOS ALBERTO AGUILAR SALINAS<br>MAGALI BARRETO AVILA et al.           | Nature                                                | 2023 |
| 8  | ATOMS: ALMA Three-millimeter Observations of Massive Star-forming regions ? XV. Steady accretion from global collapse to core feeding in massive hub-filament system SDC335 | GILBERTO CARLOS GOMEZ REYES<br>ENRIQUE CRISTIAN VAZQUEZ<br>SEMADENI Xu F.-W. et al.                | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY     | 2023 |
| 9  | Direct Observational Evidence of the Multi-scale, Dynamical Mass Accretion Toward a High-mass Star-forming Hub-filament System                                              | ENRIQUE CRISTIAN VAZQUEZ<br>SEMADENI GILBERTO CARLOS GOMEZ REYES AINA PALAU PUIGVERT et al.        | ASTROPHYSICAL JOURNAL                                 | 2023 |
| 10 | A resolution criterion based on characteristic time-scales for MHD simulations of molecular clouds                                                                          | ENRIQUE CRISTIAN VAZQUEZ<br>SEMADENI GILBERTO CARLOS GOMEZ REYES Granda-Muñoz G. et al.            | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY     | 2022 |
| 11 | Different molecular filament widths as tracers of accretion on to filaments                                                                                                 | GILBERTO CARLOS GOMEZ REYES<br>AINA PALAU PUIGVERT Catherine Walsh                                 | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY     | 2022 |
| 12 | ATOMS: ALMA Three-millimeter Observations of Massive Star-forming regions - XI. From inflow to infall in hub-filament systems                                               | GILBERTO CARLOS GOMEZ REYES<br>ENRIQUE CRISTIAN VAZQUEZ<br>SEMADENI Jian-Wen Zhou et al.           | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY     | 2022 |
| 13 | Density profile evolution during prestellar core collapse: collapse starts at the large scale                                                                               | GILBERTO CARLOS GOMEZ REYES<br>ENRIQUE CRISTIAN VAZQUEZ<br>SEMADENI AINA PALAU PUIGVERT            | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY     | 2021 |
| 14 | Measurement of the single top quark and antiquark production cross sections in the t channel and their ratio in proton-proton collisions at s=13TeV                         | DIEGO GIOVANNI GONZALEZ VALLEJO<br>ALBA ICXIUH ROMERO RODRIGUEZ<br>ALEJANDRO SOLANO PERALTA et al. | PHYSICS LETTERS B                                     | 2020 |

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| 15 | Observation of nuclear modifications in $W^\pm$ boson production in pPb collisions at $\sqrt{s_{NN}}=8.16\text{TeV}$                                                                                                                        | DIEGO GIOVANNI GONZALEZ VALLEJO<br>ALBA ICXIUH ROMERO RODRIGUEZ<br>ALEJANDRO SOLANO PERALTA et al.            | PHYSICS<br>LETTERS B                 | 2020 |
| 16 | Search for light pseudoscalar boson pairs produced from decays of the 125 GeV Higgs boson in final states with two muons and two nearby tracks in pp collisions at $\sqrt{s}=13\text{TeV}$                                                  | DIEGO GIOVANNI GONZALEZ VALLEJO<br>ALBA ICXIUH ROMERO RODRIGUEZ<br>ALEJANDRO SOLANO PERALTA et al.            | PHYSICS<br>LETTERS B                 | 2020 |
| 17 | Measurement of $t\bar{t}$ normalised multi-differential cross sections in pp collisions at $\sqrt{s}=13\text{TeV}$ , and simultaneous determination of the strong coupling strength, top quark pole mass, and parton distribution functions | JULIO SOLANO GONZALEZ DIEGO<br>GIOVANNI GONZALEZ VALLEJO ALBA<br>ICXIUH ROMERO RODRIGUEZ et al.               | EUROPEAN<br>PHYSICAL<br>JOURNAL C    | 2020 |
| 18 | Strange hadron production in pp and pPb collisions at $\sqrt{s_{NN}}=5.02\text{TeV}$                                                                                                                                                        | DIEGO GIOVANNI GONZALEZ VALLEJO<br>GILBERTO CARLOS GOMEZ REYES<br>DWIGHT ROBERTO ACOSTA NAJARRO et al.        | PHYSICAL<br>REVIEW C                 | 2020 |
| 19 | Measurement of the top quark forward-backward production asymmetry and the anomalous chromoelectric and chromomagnetic moments in pp collisions at $\sqrt{s}=13\text{TeV}$                                                                  | DIEGO GIOVANNI GONZALEZ VALLEJO<br>ALBA ICXIUH ROMERO RODRIGUEZ<br>ALEJANDRO SOLANO PERALTA et al.            | JOURNAL OF<br>HIGH ENERGY<br>PHYSICS | 2020 |
| 20 | Erratum to: Study of dijet events with a large rapidity gap between the two leading jets in pp collisions at $\sqrt{s}=7\text{TeV}$ (The European Physical Journal C, (2018), 78, 3, (242), 10.1140/epjc/s10052-018-5691-6)                 | JOSE CELESTINO GUERRERO Y<br>GARCIA DIEGO GIOVANNI GONZALEZ<br>VALLEJO GILBERTO CARLOS GOMEZ<br>REYES et al.  | EUROPEAN<br>PHYSICAL<br>JOURNAL C    | 2020 |
| 21 | Measurement of differential cross sections and charge ratios for t-channel single top quark production in proton-proton collisions at $\sqrt{s}=13\text{TeV}$                                                                               | JULIO SOLANO GONZALEZ HELGI<br>HELENE GISELA FRANZISKA JUNG<br>COOK DIEGO GIOVANNI GONZALEZ<br>VALLEJO et al. | EUROPEAN<br>PHYSICAL<br>JOURNAL C    | 2020 |
| 22 | Constraints on the $\rho_{c1}$ versus $\rho_{c2}$ Polarizations in Proton-Proton Collisions at $\sqrt{s}=8\text{TeV}$                                                                                                                       | MUFEI XIAO WU HELGI HELENE GISELA<br>FRANZISKA JUNG COOK DIEGO<br>GIOVANNI GONZALEZ VALLEJO et al.            | PHYSICAL<br>REVIEW LETTERS           | 2020 |
| 23 | Search for heavy Higgs bosons decaying to a top quark pair in proton-proton collisions at $\sqrt{s}=13\text{TeV}$                                                                                                                           | HELGI HELENE GISELA FRANZISKA<br>JUNG COOK DIEGO GIOVANNI<br>GONZALEZ VALLEJO SUBHASH<br>SHARMA et al.        | JOURNAL OF<br>HIGH ENERGY<br>PHYSICS | 2020 |

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| 24 | Measurement of the $\Upsilon(1S)$ pair production cross section and search for resonances decaying to $\Upsilon(1S)\mu^+\mu^-$ in proton-proton collisions at $\sqrt{s}=13\text{TeV}$ | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.                   | PHYSICS LETTERS B              | 2020 |
| 25 | Measurement of CKM matrix elements in single top quark t-channel production in proton-proton collisions at $\sqrt{s}=13\text{ TeV}$                                                   | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.                   | PHYSICS LETTERS B              | 2020 |
| 26 | Study of central exclusive [Equation not available: see fulltext.] production in proton-proton collisions at $\sqrt{s}=5.02$ and $13\text{TeV}$                                       | JULIO SOLANO GONZALEZ HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.           | EUROPEAN PHYSICAL JOURNAL C    | 2020 |
| 27 | Measurement of quark- and gluon-like jet fractions using jet charge in PbPb and pp collisions at $5.02\text{ TeV}$                                                                    | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.                   | JOURNAL OF HIGH ENERGY PHYSICS | 2020 |
| 28 | Search for charged Higgs bosons decaying into a top and a bottom quark in the all-jet final state of pp collisions at $\sqrt{s} = 13\text{ TeV}$                                      | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.                   | JOURNAL OF HIGH ENERGY PHYSICS | 2020 |
| 29 | The production of isolated photons in PbPb and pp collisions at $\sqrt{s_{NN}} = 5.02\text{ TeV}$                                                                                     | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.                   | JOURNAL OF HIGH ENERGY PHYSICS | 2020 |
| 30 | Measurements with silicon photomultipliers of dose-rate effects in the radiation damage of plastic scintillator tiles in the CMS hadron endcap calorimeter                            | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.                   | JOURNAL OF INSTRUMENTATION     | 2020 |
| 31 | Identification of heavy, energetic, hadronically decaying particles using machine-learning techniques                                                                                 | JULIO SOLANO GONZALEZ MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK et al.                             | JOURNAL OF INSTRUMENTATION     | 2020 |
| 32 | Measurements of production cross sections of WZ and same-sign WW boson pairs in association with two jets in proton-proton collisions at $\sqrt{s}=13\text{TeV}$                      | HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO JOSE MANUEL HERNANDEZ ALCANTARA et al. | PHYSICS LETTERS B              | 2020 |
| 33 | Measurements of $t\bar{t}H$ Production and the CP Structure of the Yukawa Interaction between the Higgs Boson and Top Quark in the Diphoton Decay Channel                             | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.                   | PHYSICAL REVIEW LETTERS        | 2020 |
| 34 | Combination of the W boson polarization measurements in top quark decays using ATLAS and CMS data at $\sqrt{s} = 8\text{ TeV}$                                                        | YAN GAO CARLOS GAY Y GARCIA MARIA DEL PILAR GUTIERREZ AMADOR et al.                                            | JOURNAL OF HIGH ENERGY PHYSICS | 2020 |

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| 35 | Search for a light pseudoscalar Higgs boson in the boosted $\mu\mu\tau\tau$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV                                    | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.  | JOURNAL OF HIGH ENERGY PHYSICS | 2020 |
| 36 | Search for physics beyond the standard model in events with jets and two same-sign or at least three charged leptons in proton-proton collisions at $\sqrt{s}=13$ TeV         | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.  | EUROPEAN PHYSICAL JOURNAL C    | 2020 |
| 37 | Search for dijet resonances using events with three jets in proton-proton collisions at $\sqrt{s}=13$ TeV                                                                     | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.  | PHYSICS LETTERS B              | 2020 |
| 38 | A measurement of the Higgs boson mass in the diphoton decay channel                                                                                                           | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.  | PHYSICS LETTERS B              | 2020 |
| 39 | Study of $J/\psi$ meson production inside jets in pp collisions at $\sqrt{s}=8$ TeV                                                                                           | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.  | PHYSICS LETTERS B              | 2020 |
| 40 | Search for a Narrow Resonance Lighter than 200 GeV Decaying to a Pair of Muons in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV                                             | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.  | PHYSICAL REVIEW LETTERS        | 2020 |
| 41 | Measurement of properties of $B_s^0 \rightarrow \mu^+\mu^-$ decays and search for $B^0 \rightarrow \mu^+\mu^-$ with the CMS experiment                                        | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.  | JOURNAL OF HIGH ENERGY PHYSICS | 2020 |
| 42 | Search for supersymmetry in pp collisions at $\sqrt{s} = 13$ TeV with $137 \text{ fb}^{-1}$ in final states with a single lepton using the sum of masses of large-radius jets | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.  | PHYSICAL REVIEW D              | 2020 |
| 43 | A search for the standard model Higgs boson decaying to charm quarks                                                                                                          | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.  | JOURNAL OF HIGH ENERGY PHYSICS | 2020 |
| 44 | Search for lepton flavour violating decays of a neutral heavy Higgs boson to $\mu\tau$ and $e\tau$ in proton-proton collisions at $\sqrt{s} = 13$ TeV                         | HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO SUBHASH SHARMA et al. | JOURNAL OF HIGH ENERGY PHYSICS | 2020 |
| 45 | Search for a heavy pseudoscalar Higgs boson decaying into a 125 GeV Higgs boson and a Z boson in final states with two tau and two light leptons at $\sqrt{s} = 13$ TeV       | HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO SUBHASH SHARMA et al. | JOURNAL OF HIGH ENERGY PHYSICS | 2020 |
| 46 | Search for physics beyond the standard model in multilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV                                                   | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.  | JOURNAL OF HIGH ENERGY PHYSICS | 2020 |

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| 47 | Search for new neutral Higgs bosons through the $H \rightarrow Z\ell^+\ell^-b\bar{b}$ process in pp collisions at $\sqrt{s} = 13$ TeV                                                              | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.         | JOURNAL OF HIGH ENERGY PHYSICS                    | 2020 |
| 48 | Measurement of top quark pair production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV                                                                          | HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO SUBHASH SHARMA et al.        | JOURNAL OF HIGH ENERGY PHYSICS                    | 2020 |
| 49 | A multi-dimensional search for new heavy resonances decaying to boosted $WW$ , $WZ$ , or $ZZ$ boson pairs in the dijet final state at 13 TeV                                                       | JULIO SOLANO GONZALEZ HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al. | EUROPEAN PHYSICAL JOURNAL C                       | 2020 |
| 50 | Measurement of the cross section for electroweak production of a Z boson, a photon and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV and constraints on anomalous quartic couplings  | MUFEI XIAO WU HELGI HELENE GISELA FRANZISKA JUNG COOK DIEGO GIOVANNI GONZALEZ VALLEJO et al.         | JOURNAL OF HIGH ENERGY PHYSICS                    | 2020 |
| 51 | Determination of the strong coupling constant $\alpha_s(m_Z)$ from measurements of inclusive $W^\pm$ and Z boson production cross sections in proton-proton collisions at $\sqrt{s} = 7$ and 8 TeV | MUFEI XIAO WU DIEGO GIOVANNI GONZALEZ VALLEJO SUBHASH SHARMA et al.                                  | JOURNAL OF HIGH ENERGY PHYSICS                    | 2020 |
| 52 | Global hierarchical collapse in molecular clouds. Towards a comprehensive scenario                                                                                                                 | ENRIQUE CRISTIAN VAZQUEZ SEMADENI AINA PALAU PUIGVERT JAVIER BALLESTEROS PAREDES et al.              | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY | 2019 |
| 53 | Observation of Medium-Induced Modifications of Jet Fragmentation in Pb-Pb Collisions at $\sqrt{s_{NN}} = 5.02$ TeV Using Isolated Photon-Tagged Jets                                               | CHUMIN WANG CHEN HELGI HELENE GISELA FRANZISKA JUNG COOK Usai E. et al.                              | PHYSICAL REVIEW LETTERS                           | 2018 |
| 54 | MHD simulations of ram pressure stripping of a disc galaxy                                                                                                                                         | GILBERTO CARLOS GOMEZ REYES Mariana Ramos-Martinez Angeles Perez-Villegas                            | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY | 2018 |
| 55 | The magnetic field structure in molecular cloud filaments                                                                                                                                          | GILBERTO CARLOS GOMEZ REYES ENRIQUE CRISTIAN VAZQUEZ SEMADENI Manuel Zamora-Aviles                   | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY | 2018 |
| 56 | Search for pair production of vector-like quarks in the $bWb\bar{q}W$ channel from proton-proton collisions at $\sqrt{s}=13$ TeV                                                                   | LIMEI ZHANG JI CHUMIN WANG CHEN HELGI HELENE GISELA FRANZISKA JUNG COOK et al.                       | PHYSICS LETTERS B                                 | 2018 |

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| 57 | Observation of the Higgs boson decay to a pair of $\tilde{l}^?$ leptons with the CMS detector               | LIMEI ZHANG JI CHUMIN WANG CHEN<br>HELGI HELENE GISELA FRANZISKA<br>JUNG COOK et al.                    | PHYSICS<br>LETTERS B                                          | 2018 |
| 58 | Measurement of charged pion, kaon, and proton production in proton-proton collisions at $\sqrt{s} = 13$ TeV | JULIO SOLANO GONZALEZ CHUMIN<br>WANG CHEN HELGI HELENE GISELA<br>FRANZISKA JUNG COOK et al.             | PHYSICAL<br>REVIEW D                                          | 2017 |
| 59 | MHD simulations of ram pressure stripping of disk galaxies                                                  | GILBERTO CARLOS GOMEZ REYES<br>Mariana Ramos-Martinez                                                   | Iau Symposium<br>Proceedings<br>Series                        | 2016 |
| 60 | Filament formation in molecular clouds as a scale-free process                                              | ENRIQUE CRISTIAN VAZQUEZ<br>SEMADENI GILBERTO CARLOS GOMEZ<br>REYES                                     | Iau Symposium<br>Proceedings<br>Series                        | 2015 |
| 61 | Inverse hubble flows in molecular clouds                                                                    | ENRIQUE CRISTIAN VAZQUEZ<br>SEMADENI PEDRO COLIN ALMAZAN<br>GILBERTO CARLOS GOMEZ REYES et<br>al.       | MONTHLY<br>NOTICES OF THE<br>ROYAL<br>ASTRONOMICAL<br>SOCIETY | 2015 |
| 62 | ERRATUM: "THE FREE-FALL TIME OF FINITE SHEETS AND FILAMENTS" (2012, ApJ, 744, 190)                          | Jesus A. Toala ENRIQUE CRISTIAN<br>VAZQUEZ SEMADENI GILBERTO<br>CARLOS GOMEZ REYES                      | ASTROPHYSICAL<br>JOURNAL                                      | 2015 |
| 63 | The galactic branches as a possible evidence for transient spiral arms                                      | Angeles PerezVillegas GILBERTO<br>CARLOS GOMEZ REYES BARBARA<br>SELEN PICHARDO SILVA                    | MONTHLY<br>NOTICES OF THE<br>ROYAL<br>ASTRONOMICAL<br>SOCIETY | 2015 |
| 64 | Filaments in simulations of molecular cloud formation                                                       | GILBERTO CARLOS GOMEZ REYES<br>ENRIQUE CRISTIAN VAZQUEZ<br>SEMADENI                                     | ASTROPHYSICAL<br>JOURNAL                                      | 2014 |
| 65 | Analysis of the spiral structure in a simulated galaxy                                                      | M. Dolores Mata Chavez GILBERTO<br>CARLOS GOMEZ REYES Puerari,<br>Ivanio                                | MONTHLY<br>NOTICES OF THE<br>ROYAL<br>ASTRONOMICAL<br>SOCIETY | 2014 |
| 66 | Comparing gaseous and stellar orbits in a spiral potential                                                  | GILBERTO CARLOS GOMEZ REYES<br>BARBARA SELEN PICHARDO SILVA<br>MARCO ANTONIO MARTOS NUÑEZ DE<br>CACERES | MONTHLY<br>NOTICES OF THE<br>ROYAL<br>ASTRONOMICAL<br>SOCIETY | 2013 |
| 67 | Molecular cloud evolution-V. Cloud destruction by stellar feedback                                          | PEDRO COLIN ALMAZAN ENRIQUE<br>CRISTIAN VAZQUEZ SEMADENI<br>GILBERTO CARLOS GOMEZ REYES                 | MONTHLY<br>NOTICES OF THE<br>ROYAL<br>ASTRONOMICAL<br>SOCIETY | 2013 |

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| 68 | THE FREE-FALL TIME OF FINITE SHEETS AND FILAMENTS                                                      | Jesus A. Toala ENRIQUE CRISTIAN VAZQUEZ SEMADENI GILBERTO CARLOS GOMEZ REYES                              | ASTROPHYSICAL JOURNAL                                               | 2012 |
| 69 | ASPECT RATIO DEPENDENCE OF THE FREE-FALL TIME FOR NON-SPHERICAL SYMMETRIES                             | Jesus A. Toala ENRIQUE CRISTIAN VAZQUEZ SEMADENI GILBERTO CARLOS GOMEZ REYES et al.                       | ASTROPHYSICAL JOURNAL                                               | 2012 |
| 70 | Molecular cloud evolution - IV. Magnetic fields, ambipolar diffusion and the star formation efficiency | ENRIQUE CRISTIAN VAZQUEZ SEMADENI GILBERTO CARLOS GOMEZ REYES Banerjee, Robi et al.                       | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY                   | 2011 |
| 71 | Numerical models for the 19th century outbursts of $\eta$ Carinae                                      | RICARDO FRANCISCO GONZALEZ DOMINGUEZ GILBERTO CARLOS GOMEZ REYES ALEJANDRO CRISTIAN RAGA RASMUSSEN et al. | REVISTA MEXICANA DE ASTRONOMIA Y ASTROFISICA, SERIE DE CONFERENCIAS | 2011 |
| 72 | Revisiting 2D numerical models for the 19th century outbursts of $\eta$ Carinae                        | RICARDO FRANCISCO GONZALEZ DOMINGUEZ A. M. Villa GILBERTO CARLOS GOMEZ REYES et al.                       | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY                   | 2010 |
| 73 | MOLECULAR CLOUD EVOLUTION. III. ACCRETION VERSUS STELLAR FEEDBACK                                      | ENRIQUE CRISTIAN VAZQUEZ SEMADENI PEDRO COLIN ALMAZAN GILBERTO CARLOS GOMEZ REYES et al.                  | ASTROPHYSICAL JOURNAL                                               | 2010 |
| 74 | Dependence of the star formation efficiency on global parameters of molecular clouds                   | Yetli Rosas Guevara ENRIQUE CRISTIAN VAZQUEZ SEMADENI GILBERTO CARLOS GOMEZ REYES et al.                  | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY                   | 2010 |
| 75 | COMPETITIVE ACCRETION IN A SHEET GEOMETRY AND THE STELLAR IMF                                          | GILBERTO CARLOS GOMEZ REYES Hsu, Wen-Hsin Hartmann, Lee et al.                                            | ASTROPHYSICAL JOURNAL                                               | 2010 |
| 76 | On the gravitational content of molecular clouds and their cores                                       | JAVIER BALLESTEROS PAREDES GILBERTO CARLOS GOMEZ REYES BARBARA SELEN PICHARDO SILVA et al.                | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY                   | 2009 |
| 77 | Tidal forces as a regulator of star formation in Taurus                                                | JAVIER BALLESTEROS PAREDES GILBERTO CARLOS GOMEZ REYES LAURENT RAYMOND LOINARD et al.                     | MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY                   | 2009 |

**GILBERTO CARLOS GOMEZ REYES**

|    |                                                                                                                                                    |                                                                                                 |                                                        |      |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------|------|
| 78 | HIGH-AND LOW-MASS STAR-FORMING REGIONS FROM HIERARCHICAL GRAVITATIONAL FRAGMENTATION. HIGH LOCAL STAR FORMATION RATES WITH LOW GLOBAL EFFICIENCIES | ENRIQUE CRISTIAN VAZQUEZ SEMADENI GILBERTO CARLOS GOMEZ REYES JAVIER BALLESTEROS PAREDES et al. | ASTROPHYSICAL JOURNAL                                  | 2009 |
| 79 | EFFECTS OF NON-CIRCULAR MOTIONS ON AZIMUTHAL COLOR GRADIENTS                                                                                       | ROSA AMELIA GONZALEZ LOPEZ LIRA GILBERTO CARLOS GOMEZ REYES Martinez-Garcia, Eric E.            | ASTROPHYSICAL JOURNAL                                  | 2009 |
| 80 | Gas orbits in a spiral potential                                                                                                                   | GILBERTO CARLOS GOMEZ REYES MARCO ANTONIO MARTOS NUÑEZ DE CACERES                               | Astrophysics and Space Science Proceedings             | 2009 |
| 81 | Formation and collapse of quiescent cloud cores induced by dynamic compressions                                                                    | GILBERTO CARLOS GOMEZ REYES ENRIQUE CRISTIAN VAZQUEZ SEMADENI JAVIER BALLESTEROS PAREDES et al. | ASTROPHYSICAL JOURNAL                                  | 2007 |
| 82 | Molecular cloud evolution. II. From cloud formation to the early stages of star formation in decaying conditions                                   | ENRIQUE CRISTIAN VAZQUEZ SEMADENI GILBERTO CARLOS GOMEZ REYES JAVIER BALLESTEROS PAREDES et al. | ASTROPHYSICAL JOURNAL                                  | 2007 |
| 83 | Errors in kinematic distances and our image of the milky way galaxy                                                                                | GILBERTO CARLOS GOMEZ REYES                                                                     | ASTRONOMICAL JOURNAL                                   | 2006 |
| 84 | The effect of the Coriolis Force on kelvin-helmholtz-driven mixing in protoplanetary disks                                                         | GILBERTO CARLOS GOMEZ REYES Ostriker E.C.                                                       | ASTROPHYSICAL JOURNAL                                  | 2005 |
| 85 | Three-dimensional magnetohydrodynamic modeling of the gaseous structure of the galaxy: Synthetic observations                                      | GILBERTO CARLOS GOMEZ REYES Cox D.P.                                                            | ASTROPHYSICAL JOURNAL                                  | 2004 |
| 86 | Three-dimensional magnetohydrodynamic modeling of the gaseous structure of the galaxy: Description of the simulations                              | GILBERTO CARLOS GOMEZ REYES Cox D.P.                                                            | ASTROPHYSICAL JOURNAL                                  | 2004 |
| 87 | A climatology of convective activity in the western end of the Isthmus of Tehuantepec                                                              | GRACIELA LUCIA BINIMELIS DE RAGA GILBERTO CARLOS GOMEZ REYES Sosa K. et al.                     | 26th Conference On Hurricanes And Tropical Meteorology | 2004 |
| 88 | Multitemporal land-cover classification of Mexico using Landsat MSS imagery                                                                        | ROMAN ALVAREZ BEJAR ROBERTO BONIFAZ ALFONZO GILBERTO CARLOS GOMEZ REYES et al.                  | INTERNATIONAL JOURNAL OF REMOTE SENSING                | 2003 |

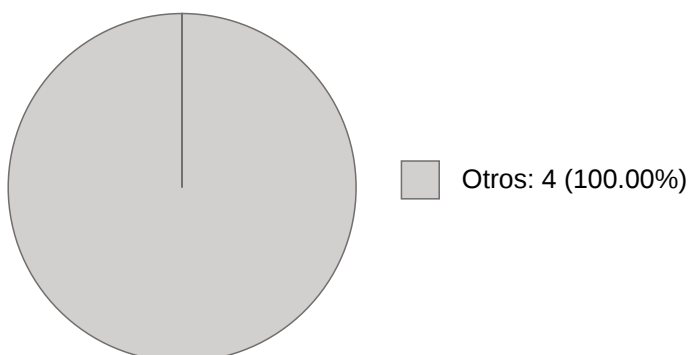
**GILBERTO CARLOS GOMEZ REYES**

|    |                                                                                                                  |                                                       |                                                                     |      |
|----|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------------------|------|
| 89 | A model for the galactic free-electron distribution                                                              | GILBERTO CARLOS GOMEZ REYES<br>Benjamin R.A. Cox D.P. | REVISTA MEXICANA DE ASTRONOMIA Y ASTROFISICA, SERIE DE CONFERENCIAS | 2002 |
| 90 | Three-dimensional magnetohydrodynamic modeling of the gaseous structure of the galaxy: Setup and initial results | GILBERTO CARLOS GOMEZ REYES Cox D.P.                  | ASTROPHYSICAL JOURNAL                                               | 2002 |
| 91 | A reexamination of the distribution of galactic free electrons                                                   | GILBERTO CARLOS GOMEZ REYES<br>Benjamin R.A. Cox D.P. | ASTRONOMICAL JOURNAL                                                | 2001 |

**GILBERTO CARLOS GOMEZ REYES**

**LIBROS Y CAPITULOS CON ISBN**

**Obras con registro ISBN**

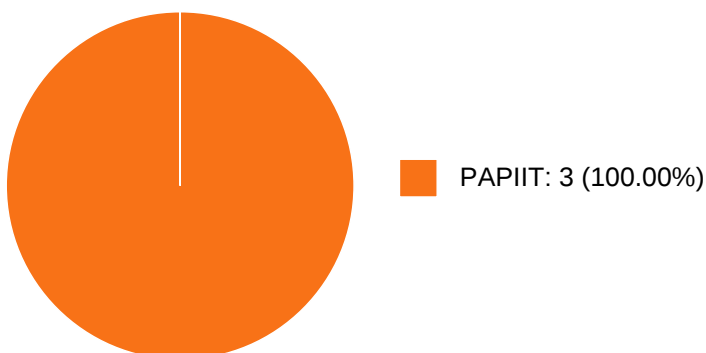


| # | Título                                                                                 | Autores                                                                                               | Alcance           | Año  | ISBN          |
|---|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------|------|---------------|
| 1 | Dark matter phase-space density distribution in dwarf spheroidal galaxies              | GILBERTO CARLOS GOMEZ REYES Krut A. Argüelles C.R. et al.                                             | Conferenc e Paper | 2018 | 9789813226593 |
| 2 | Comparing Gaseous and Stellar Orbits in a Spiral Potential                             | GILBERTO CARLOS GOMEZ REYES BARBARA SELEN PICHARDO SILVA MARCO ANTONIO MARTOS NUÑEZ DE CACERES et al. | Procedin gs Paper | 2014 | 9781583818442 |
| 3 | Analyzing Spiral Structure in a Galactic Disk with a Gaseous Component                 | GILBERTO CARLOS GOMEZ REYES M. Dolores Mata-Chavez Ivanio Puerari et al.                              | Procedin gs Paper | 2014 | 9781583818442 |
| 4 | Hydrodynamical Simulations of the Barred Galaxy NGC 4314: Gas Orbits in the Bar Region | GILBERTO CARLOS GOMEZ REYES Mariana Ramos-Martinez MS Seigar et al.                                   | Procedin gs Paper | 2014 | 9781583818442 |

**GILBERTO CARLOS GOMEZ REYES**

**PARTICIPACIÓN EN PROYECTOS**

**Histórico de participación en proyectos**

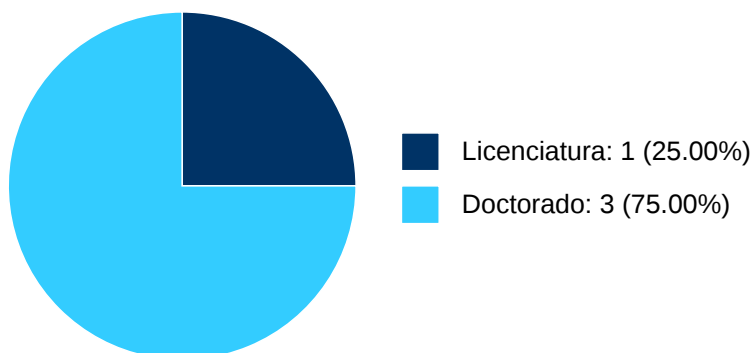


| # | Nombre                                                              | Participantes               | Fuente          | Fecha inicio | Fecha fin  |
|---|---------------------------------------------------------------------|-----------------------------|-----------------|--------------|------------|
| 1 | Formación y evolución de nubes moleculares en el contexto galáctico | GILBERTO CARLOS GOMEZ REYES | Recursos PAPIIT | 01-01-2016   | 31-12-2018 |
| 2 | Efectos de acreción hacia filamentos y grumos en nubes moleculares  | GILBERTO CARLOS GOMEZ REYES | Recursos PAPIIT | 01-01-2022   | 31-12-2023 |
| 3 | Señales químicas de acreción en subestructuras de nubes moleculares | GILBERTO CARLOS GOMEZ REYES | Recursos PAPIIT | 01-01-2024   | 31-12-2025 |

**GILBERTO CARLOS GOMEZ REYES**

**PARTICIPACIÓN EN TESIS**

**Histórico de Colaboraciones en Tesis**

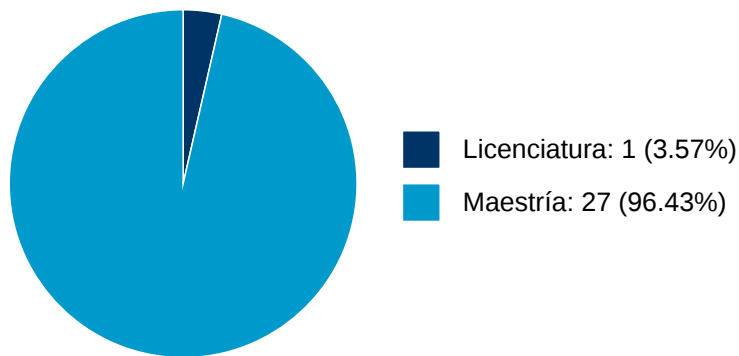


| # | Título del documento                                                        | Tipo de Tesis         | Sinodales                    | Autores                              | Entidad                                                    | Año  |
|---|-----------------------------------------------------------------------------|-----------------------|------------------------------|--------------------------------------|------------------------------------------------------------|------|
| 1 | Campos magnéticos en la formación de nubes en el medio interestelar         | Tesis de Doctorado    | GILBERTO CARLOS GOMEZ REYES, | Granda Muñoz, Guido Elar,            | Instituto de Radioastronomía y Astrofísica,                | 2023 |
| 2 | Uso de constantes de oort para caracterizar cinemática en la vecindad solar | Tesis de Licenciatura | GILBERTO CARLOS GOMEZ REYES, | Benitez Abarca, Crhistian Alejandro, | Instituto de Radioastronomía y Astrofísica,                | 2021 |
| 3 | Simulaciones MHD de galaxias medusa                                         | Tesis de Doctorado    | GILBERTO CARLOS GOMEZ REYES, | Ramos Martínez, Mariana Violeta,     | Instituto de Radioastronomía y Astrofísica,                | 2019 |
| 4 | Modelos globales de discos galácticos                                       | Tesis de Doctorado    | GILBERTO CARLOS GOMEZ REYES, | Mata Chávez, María Dolores,          | Centro de Radioastronomía y Astrofísica en Morelia, Mich., | 2015 |

**GILBERTO CARLOS GOMEZ REYES**

**DOCENCIA IMPARTIDA**

**Histórico de docencia**



| # | Nivel titulación | Asignatura                                                                                      | Entidad                                    | Alumnos | Semestre |
|---|------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------|---------|----------|
| 1 | Maestría         | DINÁMICA Y ESTRUCTURA DE GALAXIAS                                                               | Instituto de Radioastronomía y Astrofísica | 1       | 2024-1   |
| 2 | Maestría         | DINÁMICA Y ESTRUCTURA DE GALAXIAS                                                               | Instituto de Radioastronomía y Astrofísica | 6       | 2023-2   |
| 3 | Maestría         | SEMINARIO DE GRADUACIÓN                                                                         | Instituto de Radioastronomía y Astrofísica | 1       | 2023-2   |
| 4 | Maestría         | SEMINARIO DE INVESTIGACIÓN II DE LOS CAMPOS DE CONOCIMIENTO TEÓRICA, OBSERVACIONAL, CAMPOS PART | Instituto de Radioastronomía y Astrofísica | 1       | 2023-1   |
| 5 | Maestría         | DINÁMICA Y ESTRUCTURA DE GALAXIAS                                                               | Instituto de Radioastronomía y Astrofísica | 10      | 2022-2   |
| 6 | Maestría         | SEMINARIO DE INVESTIGACIÓN I DE LOS CAMPOS DE CONOCIMIENTO TEÓRICA, OBSERVACIONAL, CAMPOS PART  | Instituto de Radioastronomía y Astrofísica | 1       | 2022-2   |
| 7 | Maestría         | PROBLEMAS CONTEMPORÁNEOS DE ASTROFÍSICA COMPUTACIONAL DEL CAMPO DE CONOCIMIENTO TEÓRICA         | Instituto de Radioastronomía y Astrofísica | 3       | 2022-1   |

**GILBERTO CARLOS GOMEZ REYES**

|    |              |                                                                                                |                                                                    |   |        |
|----|--------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|---|--------|
| 8  | Maestría     | SEMINARIO DE INVESTIGACIÓN I DE LOS CAMPOS DE CONOCIMIENTO TEÓRICA, OBSERVACIONAL, CAMPOS PART | Instituto de Radioastronomía y Astrofísica                         | 1 | 2022-1 |
| 9  | Maestría     | DINÁMICA Y ESTRUCTURA DE GALAXIAS                                                              | Instituto de Radioastronomía y Astrofísica                         | 5 | 2021-1 |
| 10 | Maestría     | DINÁMICA Y ESTRUCTURA DE GALAXIAS                                                              | Instituto de Radioastronomía y Astrofísica                         | 4 | 2020-1 |
| 11 | Maestría     | DINÁMICA Y ESTRUCTURA DE GALAXIAS                                                              | Instituto de Radioastronomía y Astrofísica                         | 3 | 2019-1 |
| 12 | Maestría     | PROBLEMAS CONTEMPORÁNEOS DE ASTROFÍSICA COMPUTACIONAL DEL CAMPO DE CONOCIMIENTO TEOR.          | Instituto de Radioastronomía y Astrofísica                         | 3 | 2018-2 |
| 13 | Maestría     | DINÁMICA Y ESTRUCTURA DE GALAXIAS                                                              | Instituto de Radioastronomía y Astrofísica                         | 2 | 2018-1 |
| 14 | Maestría     | ESTUDIOS DE FRONTERAS EN ASTROFISICA-394824                                                    | Centro de Radioastronomía y Astrofísica en Morelia, Mich.          | 1 | 2017-1 |
| 15 | Licenciatura | SERVICIOS DE TECNOLOGIA                                                                        | Escuela Nacional de Estudios Superiores, Unidad Morelia, Michoacán | 2 | 2017-1 |
| 16 | Maestría     | DINAMICA Y ESTRUCTURA DE GALAXIAS                                                              | Centro de Radioastronomía y Astrofísica en Morelia, Mich.          | 3 | 2016-2 |
| 17 | Maestría     | ASTROFISICA TEORICA - PROBLEMAS CONTEMPORANEOS DE ASTROFISICA COMPUTACIONAL                    | Centro de Radioastronomía y Astrofísica en Morelia, Mich.          | 4 | 2015-1 |
| 18 | Maestría     | DINAMICA Y ESTRUCTURA DE GALAXIAS                                                              | Centro de Radioastronomía y Astrofísica en Morelia, Mich.          | 3 | 2014-2 |
| 19 | Maestría     | SEMINARIO DE INVESTIGACION IV                                                                  | Centro de Radioastronomía y Astrofísica en Morelia, Mich.          | 1 | 2014-1 |

**GILBERTO CARLOS GOMEZ REYES**

|    |          |                                        |                                                           |   |        |
|----|----------|----------------------------------------|-----------------------------------------------------------|---|--------|
| 20 | Maestría | SEMINARIO DE GRADUACION                | Centro de Radioastronomía y Astrofísica en Morelia, Mich. | 1 | 2013-2 |
| 21 | Maestría | SEMINARIO DE INVESTIGACION III         | Centro de Radioastronomía y Astrofísica en Morelia, Mich. | 1 | 2013-2 |
| 22 | Maestría | DINAMICA Y ESTRUCTURA DE GALAXIAS      | Centro de Radioastronomía y Astrofísica en Morelia, Mich. | 8 | 2013-2 |
| 23 | Maestría | DINAMICA Y ESTRUCTURA DE GALAXIAS      | Centro de Radioastronomía y Astrofísica en Morelia, Mich. | 5 | 2012-2 |
| 24 | Maestría | SEMINARIO DE INVESTIGACION I           | Centro de Radioastronomía y Astrofísica en Morelia, Mich. | 1 | 2012-2 |
| 25 | Maestría | ASTRONOMIA EXTRAGALACTICA Y COSMOLOGIA | Centro de Radioastronomía y Astrofísica en Morelia, Mich. | 3 | 2011-1 |
| 26 | Maestría | SEMINARIO DE INVESTIGACION III         | Centro de Radioastronomía y Astrofísica en Morelia, Mich. | 1 | 2010-2 |
| 27 | Maestría | SEMINARIO DE INVESTIGACION II          | Centro de Radioastronomía y Astrofísica en Morelia, Mich. | 2 | 2010-1 |
| 28 | Maestría | SEMINARIO DE INVESTIGACION I           | Centro de Radioastronomía y Astrofísica en Morelia, Mich. | 2 | 2009-1 |



**Sistema Integral de Información Académica**  
**Coordinación de Planeación, Evaluación y**  
**Simplificación de la Gestión Institucional**  
**Reporte individual**



**GILBERTO CARLOS GOMEZ REYES**

**PATENTES**

**No se encuentran registros en la base de datos de patentes asociados a:**

**GILBERTO CARLOS GOMEZ REYES**

**GILBERTO CARLOS GOMEZ REYES**

**FUENTES DE INFORMACIÓN**

**Internos**

| # | Información                                                          | Fuente | Sistema     | Periodo   |
|---|----------------------------------------------------------------------|--------|-------------|-----------|
| 1 | Grupos ordinarios y resumen de historias académicas                  | DGAE   | SIAE        | 2008-2025 |
| 2 | Nombramientos, datos generales, estímulos, premios y reconocimientos | DGAPA  | RUPA        | 2008-2025 |
| 3 | Producción Académica                                                 | CH     | Humanindex  | 2008-2021 |
| 4 | Producción Académica                                                 | CIC    | SCIC        | 2000-2017 |
| 5 | Proyectos                                                            | DGPO   | SISEPRO     | 2018-2022 |
| 6 | Tesis                                                                | DGB    | TESIUNAM    | 2008-2025 |
| 7 | Tutorías en Posgrado                                                 | CGEP   | SIIPosgrado | 2008-2021 |

**Externos**

| #  | Información             | Fuente          | Sistema      | Periodo   |
|----|-------------------------|-----------------|--------------|-----------|
| 8  | Documentos Indexados    | Elsevier        | Scopus       | 2008-2025 |
| 9  | Documentos Indexados    | Thomson Reuters | WoS          | 2008-2025 |
| 10 | Obras con registro ISBN | INDAUTOR        | Agencia ISBN | 2008-2025 |
| 11 | Patentes                | IMPI            | SIGA         | 2008-2024 |