Emmanuel Fonseca (he/him/his)

Assistant professor (tenure-track)
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Research Areas

Radio pulsars: high-precision pulsar timing; orbital dynamics; neutron-star mass measurements; gravitational radiation and pulsar timing arrays; pulsar instruments for next-generation telescopes.

Fast radio bursts: algorithm and hardware development for detection, characterization and localization; modeling of burst morphology.

Education

Ph.D. in Astronomy, the University of British Columbia (UBC) — 2012 - 2016
Advisor: Ingrid H. Stairs
Thesis: *Mass and Geometric Measurements of Binary Radio Pulsars*

M. Sc. in Astronomy, UBC — 2010 - 2012
Advisor: Ingrid H. Stairs
Thesis: *Experimental Gravity with PSR B1534+12*

B. Sc in Physics, Astronomy, the Pennsylvania State University (PSU) — 2006 - 2010
Minor: Mathematics
Advisors: Stephen Holland, Scott Koch, Erik Hoversten

Employment

Assistant professor (West Virginia University; WVU)	2021 - present
Postdoctoral researcher (McGill)	2016 - 2021
Graduate research assistant (UBC)	2010 - 2016
Summer research intern (NASA Goddard Space Flight Center)	2009, 2010
Undergraduate research assistant (PSU)	2008 - 2010

Teaching/Outreach Positions

Assistant professor (WVU)	2021 - present
Public outreach assistant (PSU, UBC, McGill)	2009 - present
Laboratory Instructor, Science Creative Literacy Symposium (UBC)	2014 - 2016
Graduate teaching assistant (UBC)	2010 - 2016

Funding

National Science Foundation (NSF)

- Astronomy & Astrophysics Grant (AAG) #2407399: **$416k USD** (PI) 2024 - 2027

Successful Telescope Programs

300-m Arecibo Observatory (1000+ hours); 100-m Green Bank Observatory (50+ hours); Karl G. Jansky Very Large Array (5 hours).

Membership

- International Pulsar Timing Array (IPTA) 2012 - present
- N. A. Nanohertz Observatory for Gravitational Waves (NANOGrav) 2012 - present
- Canadian Hydrogen Intensity Mapping Experiment (CHIME) 2016 - present
- American Astronomical Society 2016 - present

Professional Activities & Service

Conference Organization:

- CASCA 2019: member of local organizing committee; designer of conference website.
- NANOGrav spring 2017 meeting: member of science organizing committee (SOC)
- NANOGrav spring 2015 meeting: member of the science-meeting SOC.
- CASCA 2013: co-organizer of grad-student workshop, general conference assistant.

Review Panels and Committees:

- NSF-AAG review panel 2023
- Science Proposal Review Panel, Chandra X-ray Observatory 2022
- Science Proposal Review Panel, NRAO 2021 - present
- IPTA Diversity Committee 2016 - 2019

Publication Referee:

- Science Magazine
- the Astronomical Journal
- the Astrophysical Journal (main and "Letters")
- the Monthly Notices of the Royal Astronomical Society

Press Coverage

The Conversation:
invitation to write article(s) on CHIME/FRB backends

Scientific American:
article on first CHIME/FRB detection (13 August 2018)

CBC Radio Canada:
recorded telephone interview on first CHIME/FRB detection, in spanish (8 August 2018)

Recent & Upcoming Presentations

Colloquia, Workshop, & Conference Talks

- (Invited talk) "Testing gravitation from AU to cosmological scales with radio pulsars." Plenary for the 24th International Conference on General Relativity and Gravitation, 16th Edoardo Amaldi Conference on Gravitational Waves (joint meeting). 14–18 July 2025.
- (Invited talk) "Measurements of Equation-of-State Parameters using Binary Radio Pulsars." Lorentz Center, for the "Extreme Matter in Extreme Stars" workshop. 23-27 September 2024.
- (Invited talk) "A Current Census of Observables for Black Holes and Neutron Stars." Princeton University, for the "Forging a New Synthesis Between Supernova Theory and Observation" workshop. 4-6 December 2023.
- (Invited talk) "Probing the Extreme Interiors of Neutron Stars with NANOGrav." University of Pittsburgh, for the "Unravelling the Universe with Pulsar Timing Arrays" workshop. 30 November - 2 December 2023.
- (Invited talk) "Seeing Gravity and the (Invisible) Universe with Pulsar Timing Arrays." Panel in the National Diversity in STEM Conference by the Society for Advancement of Chicanos/Hispanics & Native Americans in Science. 26-28 October 2023.
- (Invited talk) "Observing Gravity and the (Invisible) Universe with Pulsar Timing Arrays." Ohio State University, for the "Phenomenology in Indiana, Kentucky, Illinois, Michigan and Ohio" Meeting. 29 April 2023.
- (Invited talk) "FRB Morphology as a (Possible) Indicator of Multiple Populations." The 2022 FRB Workshop at Cornell University, "There is Plenty of Room at the Bottom (FRBs)." 8-10 October 2022.
- (Invited talk) "High-Cadence Timing of Radio Pulsars with CHIME." The April 2021 Meeting of the American Physical Society. Remote presentation. 17-20 April 2021.
- (Invited colloquium) "FRB Astrophysics in the Era of CHIME." The Kavli Institute for Cosmological Physics at the University of Chicago. 6 December 2019.
- (Invited colloquium) "Pulsar & FRB Astrophysics in the Era of CHIME." Northwestern University. 3 December 2019.
- (Invited talk) "FRB Detection & Characterization at the Dawn of the CHIME Era." Invited talk for the URSI National meeting in Boulder, Colorado (USA), 9-12 January 2019.

Public Outreach Talks

- "Monsters in the Darkroom: Imaging the Event Horizons of Black Holes." Talk for Astronomy on Tap in Montreal, QC, 27 March 2018.
- "The Warped Road of Einstein's General Relativity." Talk for the Public Astro Night at McGill University, 14 December 2017.
- "Seeing Gravity and the (Invisible) Universe." TEDx talk for Terry Project, UBC, 2 November 2013.

Publication List for E. Fonseca

Academic, Peer Reviewed (h-index = 66; total citations = 23,490)[1]

190. H. Cromartie, M. Kerr, S. Ransom, et al. "Shapiro Delay Measurements from Fifteen Years of PSR J1231−1411 Radio Observations". *arχiv:2511.10529*. November 2025.

189. **E. Fonseca**. "Nonlinear Orbital Variations in Binary Radio Pulsars from Lense-Thirring Precession". *arχiv:2512.00963*. November 2025.

188. The CHIME/FRB Collaboration: M. Amiri, B. Andersen, S. Andrew, et al. "CHIME/FRB Outriggers: Design Overview". *The Astrophysical Journal*, 993, 55. November 2025.

187. K. Shin, C. Leung, S. Simha, et al. "Investigating the Sightline of a Highly Scattered Fast Radio Burst through a Cosmic Sheet Structure in the Local Universe". *The Astrophysical Journal*, 993, 208. November 2025.

186. J. Hazboun, J. Simon, J. Baier, et al. "The NANOGrav 12.5-year Data Set: Chromatic Noise Characterization & Mitigation with Time-Domain Kernels". *arχiv:2511.22597*. November 2025.

185. A. Curtin, K. Sand, Z. Pleunis, et al. "Morphology of 35 Repeating Fast Radio Burst Sources at Microsecond Time Scales with CHIME/FRB". *The Astrophysical Journal*, 992, 206. October 2025.

184. **E. Fonseca**. "Testing Gravitation from Light-second to Cosmological Scales with Radio Pulsars". *arχiv:2510.01062*. October 2025.

183. G. Agazie, D. Kaplan, A. Susobhanan, et al. "CHIME-o-Grav: Wideband Timing of Four Millisecond Pulsars from the NANOGrav 15-yr dataset". *arχiv:2510.16668*. October 2025.

182. J. Taylor, **E. Fonseca**, L. Dey, et al. "Searching for Exotrojans in Pulsar Binary Systems". *arχiv:2510.16164*. October 2025.

181. Y. Dong, C. Kilpatrick, W. Fong, et al. "Searching for Historical Extragalactic Optical Transients Associated with Fast Radio Bursts". *The Astrophysical Journal*, 991, 199. October 2025.

180. B. Kharel, **E. Fonseca**, C. Brar, et al. "Repeating vs. Non-Repeating FRBs: A Deep Learning Approach To Morphological Characterization". *arχiv:2509.06208*. September 2025.

179. S. Shivraj Patil, R. Main, **E. Fonseca**, et al. "A Spatial Gap in the Sky Distribution of Fast Radio Burst Detections Coinciding with Galactic Plasma Overdensities". *arχiv:2509.06721*. September 2025.

178. C. Andrade, P. Boyle, C. Brar, et al. "CHIME All-sky Multiday Pulsar Stacking Search (CHAMPSS): System Overview and First Discoveries". *The Astrophysical Journal*, 990, 50. September 2025.

[1]These statistics are accurate as of 30 December 2025 and are determined by the Astrophysics Data System (ADS). Click on the hyperlink on the CV section of my website (https://emmanuelfonseca.github.io/sections/cv.html) to visit the ADS page that lists all of my works.

177. F. Dong, T. Clarke, A. Curtin, et al. "CHIME/Fast Radio Burst/Pulsar Discovery of a Nearby Long-period Radio Transient with a Timing Glitch". *The Astrophysical Journal Letters*, 990, L49. September 2025.

176. The CHIME/FRB Collaboration: M. Amiri, D. Amouyal, B. Andersen, et al. "A Catalog of Local Universe Fast Radio Bursts from CHIME/FRB and the KKO". *The Astrophysical Journal Supplements*, 280, 6. September 2025.

175. C. Matt, K. Gultekin, L. Kelley, et al. "Inferring Mbh-Mbulge Evolution from the Gravitational Wave Background". *arχiv:2508.18126*. August 2025.

174. N. Agarwal, G. Agazie, A. Anumarlapudi, et al. "The NANOGrav 15 yr Data Set: Targeted Searches for Supermassive Black Hole Binaries". *arχiv:2508.16534*. August 2025.

173. The CHIME/FRB Collaboration: T. Abbott, D. Amouyal, B. Andersen, et al. "FRB 20250316A: A Brilliant and Nearby One-off Fast Radio Burst Localized to 13 pc Precision". *The Astrophysical Journal Letters*, 989, L48. August 2025.

172. L. Dey, R. Jennings, J. Taylor, et al. "The NANOGrav 15-year Data Set: Search for Gravitational Scattering of Pulsars by Free-Floating Objects in Interstellar Space". *arχiv:2507.19475*. July 2025.

171. F. Dong, K. Shin, C. Law, et al. "CHIME/Fast Radio Burst Discovery of an Unusual Circularly Polarized Long-period Radio Transient with an Accelerating Spin Period". *The Astrophysical Journal Letters*, 988, L29. July 2025.

170. G. Agazie, A. Anumarlapudi, A. Archibald, et al. "The NANOGrav 15 yr Data Set: Search for Gravitational-wave Memory". *The Astrophysical Journal*, 987, 5. July 2025.

169. A. Geiger, J. Cordes, M. Lam, et al. "The NANOGrav 12.5 yr Data Set: Probing Interstellar Turbulence and Precision Pulsar Timing with PSR J1903+0327". *The Astrophysical Journal*, 986, 191. June 2025.

168. H. Wang, K. Masui, S. Andrew, et al. "Measurement of the Dispersion-Galaxy Cross-Power Spectrum with the Second CHIME/FRB Catalog". *arχiv:2506.08932*. June 2025.

167. A. Curtin, S. Andrew, S. Simha, et al. "Discovery and Localization of the Swift-Observed FRB 20241228A in a Star-forming Host Galaxy". *arχiv:2506.10961*. June 2025.

166. M. Lam, D. Kaplan, G. Agazie, et al. "The NANOGrav 15-Year Data Set: A Case Study for Simplified Dispersion Measure Modeling for PSR J1455-3330 and the Impact on Gravitational Wave Sensitivity". *arχiv:2506.03597*. June 2025.

165. W. Fiore, M. McLaughlin, G. Agazie, et al. "Pulse Profile Variability of PSR J1022+1001 in NANOGrav Data". *The Astrophysical Journal*, 984, 139. May 2025.

164. K. Shin, A. Curtin, M. Fine, et al. "The CHIME/FRB Discovery of the Extremely Active Fast Radio Burst Source FRB 20240114A". *arχiv:2505.13297*. May 2025.

163. G. Agazie, A. Anumarlapudi, A. Archibald, et al. "The NANOGrav 15 yr Data Set: Harmonic Analysis of the Pulsar Angular Correlations". *The Astrophysical Journal*, 985, 99. May 2025.

162. T. Donlon, S. Chakrabarti, M. Lam, et al. "The Anomalous Acceleration of PSR J2043+1711: Long-period Orbital Companion or Stellar Flyby?". *The Astrophysical Journal*, 983, 62. April 2025.

161. A. Saffer, **E. Fonseca**, S. Ransom, et al. "A Lower Mass Estimate for PSR J0348+0432 Based on CHIME/Pulsar Precision Timing". *The Astrophysical Journal Letters*, 983, L20. April 2025.

160. C. Ng, A. Pandhi, R. Mckinven, et al. "Polarization Properties of 28 Repeating Fast Radio Burst Sources with CHIME/FRB". *The Astrophysical Journal*, 982, 154. April 2025.

159. T. Eftekhari, Y. Dong, W. Fong, et al. "The Massive and Quiescent Elliptical Host Galaxy of the Repeating Fast Radio Burst FRB 20240209A". *The Astrophysical Journal Letters*, 979, L22. February 2025.

158. V. Shah, K. Shin, C. Leung, et al. "A Repeating Fast Radio Burst Source in the Outskirts of a Quiescent Galaxy". *The Astrophysical Journal Letters*, 979, L21. February 2025.

157. K. Sand, A. Curtin, D. Michilli, et al. "Morphology of 137 Fast Radio Bursts Down to Microsecond Timescales from the First CHIME/FRB Baseband Catalog". *The Astrophysical Journal*, 979, 160. February 2025.

156. G. Agazie, A. Anumarlapudi, A. Archibald, et al. "The NANOGrav 15 yr dataset: Posterior predictive checks for gravitational-wave detection with pulsar timing arrays". *Physical Review D*, 111, 042011. February 2025.

155. G. Agazie, A. Anumarlapudi, A. Archibald, et al. "The NANOGrav 15 Yr Data Set: Removing Pulsars One by One from the Pulsar Timing Array". *The Astrophysical Journal*, 978, 168. January 2025.

154. A. Pearlman, P. Scholz, S. Bethapudi, et al. "Multiwavelength constraints on the origin of a nearby repeating fast radio burst source in a globular cluster". *Nature Astronomy*, 9, 111-127. January 2025.

153. R. Mckinven, M. Bhardwaj, T. Eftekhari, et al. "A pulsar-like polarization angle swing from a nearby fast radio burst". *Nature*, 637, 43-47. January 2025.

152. K. Nimmo, Z. Pleunis, P. Beniamini, et al. "Magnetospheric origin of a fast radio burst constrained using scintillation". *Nature*, 637, 48-51. January 2025.

151. G. Agazie, A. Anumarlapudi, A. Archibald, et al. "The NANOGrav 15 yr Data Set: Running of the Spectral Index". *The Astrophysical Journal Letters*, 978, L29. January 2025.

150. G. Agazie, A. Anumarlapudi, A. Archibald, et al. "The NANOGrav 15 yr Data Set: Looking for Signs of Discreteness in the Gravitational-wave Background". *The Astrophysical Journal*, 978, 31. January 2025.

149. L. Dey, M. McLaughlin, H. Wahl, et al. "Exploring Pulsar Timing Precision: A Comparative Study of Polarization Calibration Methods for NANOGrav Data from the Green Bank Telescope". *The Astrophysical Journal*, 977, 114. December 2024.

148. H. Lin, P. Scholz, C. Ng, et al. "Do All Fast Radio Bursts Repeat? Constraints from CHIME/FRB Far Sidelobe FRBs". *The Astrophysical Journal*, 975, 75. November 2024.

147. T. Cassanelli, C. Leung, P. Sanghavi, et al. "A fast radio burst localized at detection to an edge-on galaxy using very-long-baseline interferometry". *Nature Astronomy*, 8, 1429-1442. November 2024.

146. Y. Chen, M. Daniel, D. D'Orazio, et al. "Galaxy Tomography with the Gravitational Wave Background from Supermassive Black Hole Binaries". *arχiv:2411.05906*. November 2024.

145. B. Larsen, C. Mingarelli, J. Hazboun, et al. "The NANOGrav 15 yr Data Set: Chromatic Gaussian Process Noise Models for Six Pulsars". *The Astrophysical Journal*, 972, 49. September 2024.

144. A. Afzal, G. Agazie, A. Anumarlapudi, et al. "Erratum: "The NANOGrav 15 yr Data Set: Search for Signals from New Physics" (2023, ApJL 951 L11)". *The Astrophysical Journal Letters*, 971, L27. August 2024.

143. M. Bhardwaj, D. Michilli, A. Kirichenko, et al. "Host Galaxies for Four Nearby CHIME/FRB Sources and the Local Universe FRB Host Galaxy Population". *The Astrophysical Journal Letters*, 971, L51. August 2024.

142. F. Dong, A. Herrera-Martin, I. Stairs, et al. "Constraining the Selection-corrected Luminosity Function and Total Pulse Count for Radio Transients". *The Astrophysical Journal*, 971, 97. August 2024.

141. The CHIME/FRB Collaboration: M. Amiri, B. Andersen, S. Andrew, et al. "Updating the First CHIME/FRB Catalog of Fast Radio Bursts with Baseband Data". *The Astrophysical Journal*, 969, 145. July 2024.

140. A. McEwen, R. Lynch, D. Kaplan, et al. "The Green Bank 820 MHz Pulsar Survey. I. Survey Overview and Initial Results". *The Astrophysical Journal*, 969, 118. July 2024.

139. C. Tan, **E. Fonseca**, K. Crowter, et al. "High-cadence Timing of Binary Pulsars with CHIME". *The Astrophysical Journal*, 966, 26. May 2024.

138. S. Sosa Fiscella, M. Lam, Z. Arzoumanian, et al. "The NANOGrav 12.5-Year Data Set: Dispersion Measure Misestimations with Varying Bandwidths". *The Astrophysical Journal*, 966, 95. May 2024.

137. A. Johnson, P. Meyers, P. Baker, et al. "NANOGrav 15-year gravitational-wave background methods". *Physical Review D*, 109, 103012. May 2024.

136. G. Agazie, J. Antoniadis, A. Anumarlapudi, et al. "Comparing Recent Pulsar Timing Array Results on the Nanohertz Stochastic Gravitational-wave Background". *The Astrophysical Journal*, 966, 105. May 2024.

135. C. Kilpatrick, N. Tejos, B. Andersen, et al. "Limits on Optical Counterparts to the Repeating Fast Radio Burst 20180916B from High-speed Imaging with Gemini-North/'Alopeke". *The Astrophysical Journal*, 964, 121. April 2024.

134. **E. Fonseca**, Z. Pleunis, D. Breitman, et al. "Modeling the Morphology of Fast Radio Bursts and Radio Pulsars with fitburst". *The Astrophysical Journal Supplements*, 271, 49. April 2024.

133. R. Jennings, J. Cordes, S. Chatterjee, et al. "An Unusual Pulse Shape Change Event in PSR J1713+0747 Observed with the Green Bank Telescope and CHIME". *The Astrophysical Journal*, 964, 179. April 2024.

132. G. Agazie, Z. Arzoumanian, P. Baker, et al. "The NANOGrav 12.5 yr Data Set: Search for Gravitational Wave Memory". *The Astrophysical Journal*, 963, 61. March 2024.

131. G. Agazie, Z. Arzoumanian, P. Baker, et al. "The NANOGrav 12.5 yr Data Set: A Computationally Efficient Eccentric Binary Search Pipeline and Constraints on an Eccentric Supermassive Binary Candidate in 3C 66B". *The Astrophysical Journal*, 963, 144. March 2024.

130. G. Agazie, A. Anumarlapudi, A. Archibald, et al. "The NANOGrav 15 yr Data Set: Search for Transverse Polarization Modes in the Gravitational-wave Background". *The Astrophysical Journal Letters*, 964, L14. March 2024.

129. A. McEwen, J. Swiggum, D. Kaplan, et al. "The Green Bank North Celestial Cap Survey. IX. Timing Follow-up for 128 Pulsars". *The Astrophysical Journal*, 962, 167. February 2024.

128. M. Rafiei-Ravandi, K. Smith, D. Michilli, et al. "Statistical Association between the Candidate Repeating FRB 20200320A and a Galaxy Group". *The Astrophysical Journal*, 961, 177. February 2024.

127. A. Kirichenko, S. Zharikov, A. Karpova, et al. "The black widow pulsar J1641+8049 in the optical, radio, and X-rays". *Monthly Notices of the Royal Astronomical Society*, 527, 4563-4572. January 2024.

126. B. Bécsy, N. Cornish, P. Meyers, et al. "How to Detect an Astrophysical Nanohertz Gravitational Wave Background". *The Astrophysical Journal*, 959, 9. December 2023.

125. X. Miao, W. Zhu, M. Kramer, et al. "Variability, polarimetry, and timing properties of single pulses from PSR J2222-0137 using FAST". *Monthly Notices of the Royal Astronomical Society*, 526, 2156-2166. December 2023.

124. B. Andersen, C. Patel, C. Brar, et al. "Flux Calibration of CHIME/FRB Intensity Data". *The Astronomical Journal*, 166, 138. October 2023.

123. W. Fiore, L. Levin, M. McLaughlin, et al. "The Green Bank North Celestial Cap Survey. VIII. 21 New Pulsar Timing Solutions". *The Astrophysical Journal*, 956, 40. October 2023.

122. U. Giri, B. Andersen, P. Chawla, et al. "Comprehensive Bayesian analysis of FRB-like bursts from SGR 1935+2154 observed by CHIME/FRB". *arχiv:2310.16932*. October 2023.

121. K. Sand, D. Breitman, D. Michilli, et al. "A CHIME/FRB Study of Burst Rate and Morphological Evolution of the Periodically Repeating FRB 20180916B". *The Astrophysical Journal*, 956, 23. October 2023.

120. R. Abbott, T. Abbott, F. Acernese, et al. "Search for Gravitational Waves Associated with Fast Radio Bursts Detected by CHIME/FRB during the LIGO–Virgo Observing Run O3a". *The Astrophysical Journal*, 955, 155. October 2023.

119. G. Agazie, A. Anumarlapudi, A. Archibald, et al. "The NANOGrav 15 yr Data Set: Search for Anisotropy in the Gravitational-wave Background". *The Astrophysical Journal Letters*, 956, L3. October 2023.

118. F. Dong, K. Crowter, B. Meyers, et al. "The second set of pulsar discoveries by CHIME/FRB/Pulsar: 14 rotating radio transients and 7 pulsars". *Monthly Notices of the Royal Astronomical Society*, 524, 5132-5147. October 2023.

117. A. Curtin, S. Tendulkar, A. Josephy, et al. "Limits on Fast Radio Burst-like Counterparts to Gamma-Ray Bursts Using CHIME/FRB". *The Astrophysical Journal*, 954, 154. September 2023.

116. G. Agazie, A. Anumarlapudi, A. Archibald, et al. "The NANOGrav 15 yr Data Set: Constraints on Supermassive Black Hole Binaries from the Gravitational-wave Background". *The Astrophysical Journal Letters*, 952, L37. August 2023.

115. R. Mckinven, B. Gaensler, D. Michilli, et al. "Revealing the Dynamic Magnetoionic Environments of Repeating Fast Radio Burst Sources through Multiyear Polarimetric Monitoring with CHIME/FRB". *The Astrophysical Journal*, 951, 82. July 2023.

114. G. Agazie, Z. Arzoumanian, P. Baker, et al. "The NANOGrav 12.5-year Data Set: Search for Gravitational Wave Memory". *arχiv:2307.13797*. July 2023.

113. Z. Arzoumanian, P. Baker, L. Blecha, et al. "The NANOGrav 12.5 yr Data Set: Bayesian Limits on Gravitational Waves from Individual Supermassive Black Hole Binaries". *The Astrophysical Journal Letters*, 951, L28. July 2023.

112. G. Agazie, A. Anumarlapudi, A. Archibald, et al. "The NANOGrav 15 yr Data Set: Detector Characterization and Noise Budget". *The Astrophysical Journal Letters*, 951, L10. July 2023.

111. G. Agazie, A. Anumarlapudi, A. Archibald, et al. "The NANOGrav 15 yr Data Set: Bayesian Limits on Gravitational Waves from Individual Supermassive Black Hole Binaries". *The Astrophysical Journal Letters*, 951, L50. July 2023.

110. A. Afzal, G. Agazie, A. Anumarlapudi, et al. "The NANOGrav 15 yr Data Set: Search for Signals from New Physics". *The Astrophysical Journal Letters*, 951, L11. July 2023.

109. G. Agazie, A. Anumarlapudi, A. Archibald, et al. "The NANOGrav 15 yr Data Set: Evidence for a Gravitational-wave Background". *The Astrophysical Journal Letters*, 951, L8. July 2023.

108. G. Agazie, M. Alam, A. Anumarlapudi, et al. "The NANOGrav 15 yr Data Set: Observations and Timing of 68 Millisecond Pulsars". *The Astrophysical Journal Letters*, 951, L9. July 2023.

107. R. Mckinven, B. Gaensler, D. Michilli, et al. "A Large-scale Magneto-ionic Fluctuation in the Local Environment of Periodic Fast Radio Burst Source FRB 20180916B". *The Astrophysical Journal*, 950, 12. June 2023.

106. M. Falxa, S. Babak, P. Baker, et al. "Searching for continuous Gravitational Waves in the second data release of the International Pulsar Timing Array". *Monthly Notices of the Royal Astronomical Society*, 521, 5077-5086. June 2023.

105. D. Michilli, M. Bhardwaj, C. Brar, et al. "Subarcminute Localization of 13 Repeating Fast Radio Bursts Detected by CHIME/FRB". *The Astrophysical Journal*, 950, 134. June 2023.

104. M. Yuan, W. Zhu, M. Kramer, et al. "High-altitude Magnetospheric Emissions from Two Pulsars". *The Astrophysical Journal*, 949, 115. June 2023.

103. M. Merryfield, S. Tendulkar, K. Shin, et al. "An Injection System for the CHIME/FRB Experiment". *The Astronomical Journal*, 165, 152. April 2023.

102. A. Cook, M. Bhardwaj, B. Gaensler, et al. "An FRB Sent Me a DM: Constraining the Electron Column of the Milky Way Halo with Fast Radio Burst Dispersion Measures from CHIME/FRB". *The Astrophysical Journal*, 946, 58. April 2023.

101. The CHIME/FRB Collaboration: B. Andersen, K. Bandura, M. Bhardwaj, et al. "CHIME/FRB Discovery of 25 Repeating Fast Radio Burst Sources". *The Astrophysical Journal*, 947, 83. April 2023.

100. H. Ding, A. Deller, B. Stappers, et al. "The MSPSRπ catalogue: VLBA astrometry of 18 millisecond pulsars". *Monthly Notices of the Royal Astronomical Society*, 519, 4982-5007. March 2023.

99. The CHIME/FRB Collaboration: M. Amiri, B. Andersen, K. Bandura, et al. "Erratum: "The First CHIME/FRB Fast Radio Burst Catalog" (2021, ApJS, 257, 59)". *The Astrophysical Journal Supplements*, 264, 53. February 2023.

98. D. Good, P. Chawla, **E. Fonseca**, et al. "Nondetection of CHIME/Fast Radio Burst Sources with the Arecibo Observatory". *The Astrophysical Journal*, 944, 70. February 2023.

97. J. Swiggum, Z. Pleunis, E. Parent, et al. "The Green Bank North Celestial Cap Survey. VII. 12 New Pulsar Timing Solutions". *The Astrophysical Journal*, 944, 154. February 2023.

96. K. Shin, K. Masui, M. Bhardwaj, et al. "Inferring the Energy and Distance Distributions of Fast Radio Bursts Using the First CHIME/FRB Catalog". *The Astrophysical Journal*, 944, 105. February 2023.

95. B. Andersen, **E. Fonseca**, J. McKee, et al. "CHIME Discovery of a Binary Pulsar with a Massive Nondegenerate Companion". *The Astrophysical Journal*, 943, 57. January 2023.

94. H. Wahl, M. McLaughlin, P. Gentile, et al. "Erratum: "The NANOGrav 12.5 yr Data Set: Polarimetry and Faraday Rotation Measures from Observations of Millisecond Pulsars with the Green Bank Telescope" (2022, ApJ, 926, 168)". *The Astrophysical Journal*, 941, 210. December 2022.

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