NANOGRAV FALL 2026 COLLABORATION MEETING

Held at the Texas Tech University
Lubbock, TX
November 16$^{\text{th}}$–18$^{\text{th}}$

All times are listed in Central Standard Time (GMT -6 Hours)

Last updated: November 16, 2026

Monday, November 16$^{\text{th}}$

Time	Session
8:45 AM - 9:00 AM	**Welcome Address** Presented by Nihan Pol, Chair of the LOC
9:00 AM - 10:30 AM	**Talk Session 1:** Pulsars and Pulsar Timing **Chairs: Jacob Turner & Thankful Cromartie**
James McKee	*Flux-Dependent Pulse Morphology in PSR J1713+0747*
Shania Nichols	*The Search for Nulling and Mode Changing in J1909-3744*
Ezequiel Zubieta	*High-Cadence IAR Monitoring of the 2024 Vela Glitch and the Search for Associated Gravitational-Wave Bursts*
Dhruva Kalyani	*Exploring the Updated Timing Solutions of $\tilde{1}6$ Canonical Pulsars Observed by CHIME*
Tyler Cohen	*Optimal Timing Strategies with DSA*
Ashley Martsen	*Jumps between GUPPI and VEGAS: A Recap*
Jeremy Baier	*The NANOGrav 20 year dataset: timing and noise modeling pipeline*
10:30 AM - 11:00 AM	**Coffee Break**
11:00 AM - 12:30 PM	**Discussion Session 1:** The NANOGrav 20 Year Dataset **Chairs: Ashley Martsen & Emiko Gardiner** **Panel: Jeremy Baier, Thankful Cromartie, Megan DeCaesar, Michael Lam, and Mercedes S. Thompson**
12:30 PM - 1:30 PM	**Lunch**
1:30 PM - 3:00 PM	**Talk Session 2:** ISM & Noise Modeling **Chairs: Timothy Dolch and Bjorn Larsen**
Swarali Patil	*Orbital Constraints on J1125+7819 Through Scintillation Arcs*
Jacob Turner	*Constraining Scattering Medium Geometry with Cyclic Spectroscopy*
Mercedes S. Thompson	*BBX: From Adaptive Dispersion Measure Timescales to Gaussian Process Noise Modeling in Pulsar Timing Arrays*
Sophia Sosa Fiscella	*An Elegant FD Formulation for a More Civilized PTA Age*
Martine Maggi	*Applying Modern NANOGrav Noise Analysis to the Broader Pulsar Ecosystem*
Kalista Wayt	*Exploring Red Noise with NICER Data*
Daniel Oliver	*Analytic Scaling Laws for Pulsar Timing Arrays with Heterogeneous Noise*

Time	Session
3:00 PM - 3:30 PM	**Coffee Break**
3:30 PM - 5:00 PM	**Talk Session 3:** Detection Science **Chairs: Ross Jennings and Alex Saffer**
Nima Laal	*A Novel Way to Marginalize over Deterministic Signals*
Levi Schult	*Advancements in nHz Bayesian Anisotropy Searches*
Kushagra N. Nag	*Spotlights in the sky: a transdimensional anisotropic Gaussian-Beam framework for mapping the Gravitational Wave Background with Pulsar Timing Arrays*
Taha Moursy	*A simulation-based study of frequentist anisotropy detection and characterization*
Tristan Smith	*Optimal estimation of the gravitational wave background angular power spectrum with PTAs*
Aiden Gundersen	*Assessing PTA consistency and detector sensitivity with skymaps*
Amanda Karis	*Adaptive Model-Switch Thermodynamic Integration: A Bayes Factor Estimator*
5:30 PM - 7:00 PM	**Colloquium: Building a Galaxy-Sized Detector for the Largest Collision in the Universe** Held in the Science Building's Lecture Room 7, Prof. Xavier Siemens will be giving an invited public talk for the Texas Tech community.

Tuesday, November 17th

Time	Session
9:00 AM - 10:30 AM	**Talk Session 4:** Gravitational Waves **Chairs: Joseph Lazio and Deborah Good**
Kyle Gersbach	*Beyond Linearities: How our timing model effects GW analyses*
Rand Burnette	*The Noise Marginalized F statistic for Gravitational Wave Memory*
Jeffrey Hazboun	*Optimal Statistic for PTA-Astrometry Cross Correlation*
Shashwat Sardesai	*Search for Microhertz GWs using binary resonance*
Matt Miles	*Can pulsar timing arrays be phased up using continuous waves?*
Emiko Gardiner	*Continuous Wave Constraints on Supermassive Black Hole Binaries*
Lucas Spears	*P-values in The Extreme-Tail and Beyond: An Alternative Approach for High Significance Regimes*
10:30 AM - 11:00 AM	**Coffee Break**
11:00 AM - 11:30 AM	**Speed Networking**
11:30 AM - 12:30 PM	**Poster Session** (starting with one-minute lightning talks)
Anjana Ashok	*Probing non-classicality of continuous gravitational waves*
Bjorn Larsen	*Better Priors for Targeted SMBHB Searches*
Bobby King	*Broadband Principal Component Characterization of the 2021 Pulse-Shape Change Event in PSR J1713+0747 in the NANOGrav Dataset*
Caleb Fowler	*A Bayesian approach to Fourier truncation*
Calvin Dear and Pratyasha Gitika	*Understanding the Null Distribution of Continuous Waves*
Dallon Carlson	*Quantifying Detection and Model Confusion of Periodic SMBHB Signals in CRTS- and LSST-like Surveys*
Edmund Cameron	*Applying Topological Data Analysis to AGN Light Curves*
Erica Egleton	*Modeling the Geometry of the Interstellar Medium by Studying the Scintillation of B1937+21*
Greta Varga	*Extending Multi-Survey Light Curves of Periodic AGN Candidates with Rubin Observatory Data*
Isac Lainez	*Development of a Radio Pulsar Data Analysis Pipeline and Single-Pulse Emission Studies of PSR J1713+0747*
Jeremy M. Wachter	*PTA-informed predictions at higher frequencies*
Juan G. Lebron Medina	*MCMC applied to Pulsar Scintillation*
Kohl Bovee	*On 21-cm Astronomy in a High RFI Environment*
Lawrence Wise	*On The Prospects of Using Cyclic Spectroscopy on Canonical Pulsars*
Ross Jennings	*NANOGrav TOA generation and the quicklook pipeline*
Shazia Deokarran	*Low-Frequency Radio Search for the Pi/2 Pulsar*
Stephanie Poole	*Transient Chromatic Noise Modeling in the NANOGrav 20 Year Dataset*
Surajit Ghosh	*Bayesian Methods for Continuous Gravitational Wave Searches and the effect of Pulsar Distance Priors*
12:30 PM - 1:30 PM	**Lunch**

Time	Session
1:30 PM - 2:30 PM	**Talk Session 5:** Tools & Catalogue Development **Chairs: Julia Wright and Aaron Johnson**
Timothy Dolch	*Update and Future Plans for the Student Teams of Astrophysics ResearcherS Undergraduate Pathways (STARS-UP) Program with Two-Year College Students*
Zachary Zelensky	*Advancing Pulsar Population Synthesis and Updates to PsrPopPy*
Fronefield Crawford	*Update on Tricorder*
Stella Ocker	*NE2025: An updated electron density model of the Galactic interstellar medium*
Jordan O'Kelley	*An Update on BOBCat*
2:30 PM - 3:30 PM	**Discussion Session 2:** Ethical Considerations of AI & Policy Development **Chairs: Levi Schult and Heling Deng** **Panel: Sarah Burke-Spolaor, Adam Brazier, Thankful Cromartie, and Ashley Martsen**
3:30 PM - 4:00 PM	**Coffee Break**
4:00 PM - 5:00 PM	**Discussion Session 3:** Invited Speakers from NVIDIA Science + Q&A **Chairs: Joe Glaser and Amanda Karis** **Speakers: Dr. Chris Brissette (Computer Science) and Dr. Quynh Nguyen (Experimental Atomic & Optical Physics)**
6:00 PM - 8:00 PM	**Conference Reception** The conference reception will take place at the Frazier Alumni Pavilion, whose entrance is on the North side of the building. The dinner will feature a catered buffet and a cash bar.

Wednesday, November 18th

Time	Session
9:00 AM - 10:30 AM	**Talk Session 6:** Source Characterization **Chairs: Robin Case and Caitlin Witt**
Sebastian Banaszak	*Time-domain searches for Supermassive Black Hole Binaries*
Alberto Diaz	*Assessing periodicity as a reliable supermassive black hole binary signature*
Polina Petrov	*Ranking Supermassive Black Hole Binary Host Galaxies*
Alexander W. Criswell	*Global Astrophysical Inference of the Supermassive Black Hole Binary Population*
Loki Dey	*Can multi-messenger data unlock stronger SMBHB detection?*
Heling Deng	*An oscillating cosmic string loop in the Milky Way as a new target for pulsar timing arrays*
Graham Doskoch	*This Too Shall Pass: Going from IPTA DR3 to DR4*
10:30 AM - 11:00 AM	**Coffee Break**
11:00 AM - 12:30 PM	**Discussion Session 4:** Future of Data Releases & Publications **Chairs: Alexander W. Criswell and Jeremy M. Wachter** **Panel: Paul Baker, Megan DeCaesar, Graham Doskoch, Steve Taylor, Michael Lam**
12:30 PM - 12:45 PM	**Closing Remarks** Presented by Joseph Glaser, Chair of the SOC
12:45 PM - 1:30 PM	**Lunch**
1:30 PM - 2:30 PM	**Hack Session**
2:30 PM - 3:30 PM	**Hack Session**
3:30 PM - 4:00 PM	**Coffee Break**
4:00 PM - 4:45 PM	**Hack Session**

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the Scientific Organizing Committee:
Joseph Glaser (Chair), Deepali Agarwal, Megan DeCesar, Tim Dolch, Anala K. S., Ashley Martsen; and Student Workshop Committee (SWC): Michael Lam (SWC Chair), .