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PUBLICATIONS

Refereed Journals & Hardbound Volumes

1. TINNEY, C.E., ZHAO-DUBUC, Y., VALDEZ, J. (2023) The space-time structure of sound produced by stacked rotors in hover using Vold-Kalman filters and proper orthogonal decomposition. *Int. J. Aeroacoustics*, **22**:5-6, pp. 576-598, DOI: [10.1177/1475472X231199186](#)
2. WILLIS, W.A., CORMACK, J.M., TINNEY, C.E. & HAMILTON, M.F. (2023) Reduced-Order Comparison of Simulated and Measured Coalescing Mach Waves near Supersonic Jets. *AIAA J.*, **61**:5, pp. 2022–2034, DOI: [10.2514/1.J062462](#).
3. VALDEZ, J. & TINNEY, C.E. (2022) Wake of a Coaxial Corotating Rotor in Hover. *AIAA J.*, **60**:8, pp. 4829–4839, DOI: [10.2514/1.J061651](#).
4. TINNEY, C. E. & BAARS, W.J. (2021) Supersonic jet noise phenomena and crackle. *VKI Lecture series on: State of the Art Hypersonic Civilian Transport Design, Technologies and Environmental Impact*. (ed. B. H. Saracoglu) von Karman Institute for Fluid Dynamics, ISBN: 978-2-87516-171-0.
5. BAARS, W.J., MURRAY, N.E. & TINNEY, C.E. (2021) A proper framework for studying noise from jets with non-compact sources. *J. Fluid Mech.*, **929**, A23, pp. 1–32, DOI: [10.1017/jfm.2021.837](#).
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9. TINNEY, C.E., & VALDEZ, J. (2020) Thrust and acoustic performance of small-scale, coaxial, corotating rotors in hover. *AIAA J.*, **58**:4, pp. 1657–1667, DOI: [10.2514/1.J058489](#).
10. EITNER, M., SIROHI, J., & TINNEY, C.E. (2019) Modal parameter estimation of a reduced-scale rocket nozzle using blind source separation. *Measurement Science Technology J.*, IOP Publishing, **30**, pp. 1–13. DOI: [10.1088/1361-6501/ab228f](#).
11. TINNEY, C.E., SHIPMAN, J., & PANICKAR, P. (2019) Proper-orthogonal-decomposition-based reduced-order models for characterizing ship airwake interactions. *AIAA J.*, **58**:2, pp. 633–646, DOI: [10.2514/1.J058499](#).

12. TINNEY, C.E., PANICKAR, P. & VOGEL, P. (2018) Aeroacoustics of a Planar Multistream Supersonic Nozzle with Aft Deck and Sidewalls. *AIAA J.*, **56**:10, pp. 3926–3937, DOI: [10.2514/1.J056735](https://doi.org/10.2514/1.J056735).
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Refereed Conference Proceedings

1. ZHAO-DUBUC, Y., & TINNEY, C.E. (2024) Homogeneous and heterogeneous forms of the gappy-POD applied to the ship airwake. *AIAA Aviation 2024 Forum*, Las Vegas, Paper 2024–4189, DOI: [10.2514/6.2024-4189](https://doi.org/10.2514/6.2024-4189).
2. TINNEY, C.E., ZHAO-DUBUC, Y., & VALDEZ, J.A. (2024) Quadratic gappy-POD applied to the acoustic field of high Mach number jets. *AIAA/CEAS Aeroacoustics Conference*, Rome, Italy, Paper 2024–3254, DOI: [10.2514/6.2024-3254](https://doi.org/10.2514/6.2024-3254).
3. TINNEY, C.E., & VALDEZ, J.A. (2024) Hover Performance and Acoustics of a 35% Scale Notional eVTOL Rotor. *AIAA/CEAS Aeroacoustics Conference*, Rome, Italy, Paper 2024–3219, DOI: [10.2514/6.2024-3219](https://doi.org/10.2514/6.2024-3219).

4. PANDEY, N.V., VALDEZ, J.A., BEAMAN, W., & TINNEY, C.E. (2024) Acoustics of Side-by-Side Synchronphased Rotors. *AIAA/CEAS Aeroacoustics Conference*, Rome, Italy, Paper 2024–3218, DOI: [10.2514/6.2024-3218](https://doi.org/10.2514/6.2024-3218).
5. TINNEY, C.E., ZHAO-DUBUC, Y., & VALDEZ, J. (2024) Frequency Domain gappy-POD for Rotor Acoustic Measurement Optimization. *Vertical Flight Society 80th Annual Forum*, Montreal, Canada, May, SKU: F-0080-2024-1121. *Winner of the VFS Forum 80 Acoustics Best Paper Award*.
6. TINNEY, C.E., VALDEZ, J., HORSTMANN, H., RUF, J.H., & RIVORD, T. (2024) Nozzle Side Load Test and Evaluation. *JANNAF 71st Propulsion Meeting*, Oklahoma City.
7. TINNEY, C.E., VALDEZ, J., & ZHAO-DUBUC, Y. (2024) Distilling the acoustics of stacked rotors using conventional POD with Vold-Kalman filters. *AIAA SciTech 2024 Forum*, Orlando, Paper 2024–2472, DOI: [10.2514/6.2024-2472](https://doi.org/10.2514/6.2024-2472).
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9. WILLIS, W., VALDEZ, J., TINNEY, C.E. & HAMILTON, M.F. (2023) A machine learning approach to identifying waveform coalescence in supersonic jet noise. *AIAA Aviation 2023 Forum*, San Diego, Paper 2023–3353, DOI: [10.2514/6.2022-3353](https://doi.org/10.2514/6.2022-3353).
10. WILLIS, W.A., VALDEZ, J.A., PINEAU, P., BOGEY, C., TINNEY, C.E. & HAMILTON, M.F. (2023) A study of Mach wave coalescence using spark sources and large-eddy simulation. *AIAA Scitech 2023 Forum*, National Harbor, Paper 2023–0021, DOI: [10.2514/6.2023-0021](https://doi.org/10.2514/6.2023-0021).
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ABSTRACTS & ORAL PRESENTATIONS (Public)

Abstracts

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3. TINNEY, C.E., VALDEZ, J., & ZHAO-DUBUC, Y. (2023) The acoustics of multirotor platforms for urban air mobility. *185th Meeting of the Acoustical Society of America*, **154**:4, Pt. 2 of 2. Sydney, Australia, (Invited).
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32. BAARS, W.J. & TINNEY, C.E. (2013) Time preserved jet crackle quantification. *Texas Fluid Dynamics Meeting*. Lake Buchanan, USA.
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37. BAARS, W.J. & TINNEY, C.E. (2009) POD based higher order spectral estimation. *Bulletin of the American Physical Society*. **54**:19, Minneapolis, USA.
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48. TINNEY, C.E., GLAUSER, M.N. (2002) Low-dimensional methods for noise control of a Mach 0.85 jet. *1000 Islands Fluid Mechanics Meeting*. Alexandria Bay, Canada
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Oral Presentations

1. TINNEY, C.E. (2023) The space-time structures of sound produced by rotors in hover. *NASA Langley Research Center*. Yorktown, USA.
2. TINNEY, C.E. (2022) Rotor Noise: A tale of two scales. *NASA Glenn Research Center*. Cleveland, USA.
3. TINNEY, C. E. (2021) Supersonic jet noise phenomena and crackle. *von Karman Institute for Fluid Dynamics Lecture Series*. Virtual.
4. TINNEY, C.E. (2019) Aerodynamic and aeroacoustic performance of stacked rotors in hover. *NASA Langley Research Center*. Yorktown, USA.
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