

PRINCIPAL PUBLICATION LIST

Partial count: **285: 86** journal articles, **5** book chapters, **1** book, and **193** conference papers
Frequency: **13 /yr: 4** journal and **9** conference papers per year during 1997-2018 (21-year avg)
Milestones: 15 and 16 full-length papers at JPC'04 and JPC'10, respectively
Best Papers: 17 best papers/presentations (advisory role) including six (6) at the national stage
Best Posters: 16 best student posters and 3 Finish-in-Five presentations (advisory role)
National: [2018 Abe M Zarem Award](#) (for best student paper in Astronautics)
[2017 AIAA Best Solid Rockets Student Paper Award](#) (AIAA Paper № 2017-4779)
[2015 AIAA Best Solid Rockets Paper Award](#) (AIAA Paper № 2014-4016)
[2014 AIAA Best Masters Student Paper](#) (AIAA Paper № 2014-0006)
[2013 Abe M Zarem Award](#) (for best paper in Astronautics)
[2005 AIAA Best Solid Rockets Paper Award](#) (AIAA Paper № 2004-4054)

JOURNAL ARTICLES

1997

1. [Majdalani, J](#) and Van Moorhem, W K, "A Multiple-scales Solution to the Acoustic Boundary Layer in Solid Rocket Motors," **Journal of Propulsion and Power**, 13 (2), March 1997, pp 186-193. [doi: 10.2514/2.5168](#)

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2. [Majdalani, J](#) and Van Moorhem, W K, "Improved Time-dependent Flowfield Solution for Solid Rocket Motors," **AIAA Journal**, 36 (2), Feb 1998, pp 241-248. [doi: 10.2514/2.7507](#)
3. [Majdalani, J](#), "A Hybrid Multiple Scale Procedure for Boundary Layers Involving Several Dissimilar Scales," **Journal of Applied Mathematics and Physics (ZAMP)**, 49 (6), Nov 1998, pp 849-868. [doi: 10.1007/s000330050126](#)

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4. [Majdalani, J](#), "The Boundary Layer Structure in Cylindrical Rocket Motors," **AIAA Journal**, 37 (4), April 1999, pp 505-508. [doi: 10.2514/2.742](#)
5. [Majdalani, J](#), "Asymptotic Formulation for an Acoustically Driven Field Inside a Rectangular Cavity with a Well-defined Convective Mean Flow Motion," **Journal of Sound and Vibration**, 223 (1), May 1999, pp 73-95. [doi: 10.1006/jsvi.1998.2137](#)
6. [Majdalani, J](#), "Vortical and Acoustical Mode Coupling Inside a Two-dimensional Cavity with Transpiring Walls," **Journal of the Acoustical Society of America**, 106 (1), July 1999, pp 46-56. [doi: 10.1121/1.428032](#)

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10. [Majdalani, J](#), "The Oscillatory Channel Flow with Arbitrary Wall Injection," **Journal of Applied Mathematics and Physics (ZAMP)**, 51 (1), Jan 2001, pp 33-61. [doi: 10.1007/PL00001539](#)

11. Majdalani, J, "Improved Solution for the Vortical and Acoustical Mode Coupling Inside a Two-dimensional Cavity with Porous Walls," **Journal of the Acoustical Society of America**, 109 (2), Feb 2001, pp 475-479. [doi: 10.1121/1.1340648](https://doi.org/10.1121/1.1340648)
12. Majdalani, J, "Vorticity Dynamics in Isobarically Closed Porous Channels Part I: Standard Perturbations," **Journal of Propulsion and Power**, 17 (2), March 2001, pp 355-362. [doi: 10.2514/2.5749](https://doi.org/10.2514/2.5749)
13. Majdalani, J and Roh, T S, "Vorticity Dynamics in Isobarically Closed Porous Channels Part II: Space-reductive Perturbations," **Journal of Propulsion and Power**, 17 (2), March 2001, pp 363-370. [doi: 10.2514/2.5750](https://doi.org/10.2514/2.5750)
14. Majdalani, J and Van Moorhem, W K, "Laminar Cold-flow Model for the Internal Gas Dynamics of a Slab Rocket Motor," **Journal of Aerospace Science and Technology**, 5 (3), May 2001, pp 193-207. [doi: 10.1016/S1270-9638\(01\)01095-1](https://doi.org/10.1016/S1270-9638(01)01095-1)

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195. Saad, T and Majdalani, J, "Pressure Integration Rules and Restrictions for the Navier-Stokes Equations," **AIAA-2010-4288**, 40th AIAA Fluid Dynamics Conference and Exhibit, Chicago, IL, June 28-July 1, 2010
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197. Majdalani, J and Maicke, B A, "Inversion of the Fundamental Isentropic Expansion Equations in Variable Area Duct Flow," **AIAA-2010-4861**, 40th AIAA Fluid Dynamics Conference and Exhibit, Chicago, IL, June 28-July 1, 2010
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223. Haddad, C T and Majdalani, J, "Transverse Waves in Simulated Liquid Rocket Engines," **AIAA-2011-6029**, 47th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, San Diego, CA, July 31-Aug 3, 2011

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233. Majdalani, J and Van Horn, E M, "Extension of the Taylor-Culick Profile to Rockets with Noncircular Grain Perforations," **AIAA-2013-3916**, 49th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, San Jose, CA, July 14-17, 2013
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236. Maicke, B A and Majdalani, J, "Particle Image Velocimetry in Confined Vortex Flows," XXII International Conference on Spectral Line Shapes (ICSLS 2014), Tullahoma, TN, June 1-6 2014
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243. Majdalani, J and Fist, A, "Improved Mean Flow Solution for Solid Rocket Motors with a Naturally Developing Swirling Motion," **AIAA-2014-4016**, 50th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Cleveland, OH, July 28-30, 2014. **Best Paper of the Session in Simulation and Analysis II. Nominated for Best Solid Rockets Paper Award by Wesley Ryan and Barbara Leary. Winner of the 2015 AIAA Solid Rockets Best Paper**
244. Fist, A, Majdalani, J and Saad, T, "Energy Steepened States of the Swirling Mean Flow in a Solid Rocket Motor," **AIAA-2014-4017**, 50th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Cleveland, OH, July 28-30, 2014
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249. Cecil, O and Majdalani, J, "On Steady Trkalian High Speed Flows: Swirling Compressible Motion in Rockets with Headwall Injection," AIAA-2015-3788, 51st AIAA/SAE/ASEE Joint Propulsion Conference, Orlando, FL, July 27-29, 2015. **Best Paper of the Session in Solid Rocket Motor Combustion Flow Fields and Instability I. Nominated for Best Solid Rockets Paper Award.**
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252. Maicke, B A and Majdalani, J, "Characterization of Particle Trajectories in the Bidirectional Vortex Engine," AIAA-2015-3849, 51st AIAA/SAE/ASEE Joint Propulsion Conference, Orlando, FL, July 27-29, 2015

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254. Majdalani, J and Barber, T A, "Beltramian and Trkalian Vortices in Cyclonic Chambers with Hollow Cores," **AIAA-2016-4580**, 52nd AIAA/SAE/ASEE Joint Propulsion Conference, Salt Lake City, UT, July 25-27, 2016
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260. Cecil, O and Majdalani, J, "The Taylor-Culick Profile for Spinning Rocket Motors," **AIAA-2017-4779**, 53rd AIAA/SAE/ASEE Joint Propulsion Conference, Atlanta, GA, July 10-12, 2017. **Winner of the 2017 AIAA Solid Rockets Best Student Paper**
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