This installment is the final one on compressible flow in this introductory series. The starting point is the relationship

\[ \frac{A}{A\*} = \frac{1}{M} \left(1+\frac{\gamma-1}{2}\right)^{\frac{\gamma+1}{2(1-\gamma)}} \left[ 1+ \frac{\gamma-1}{2} M^2 \right]^{\frac{\gamma+1}{2(\gamma-1)}} \; , \]

derived in the last post, which relates the flow rate (as designated by the Mach number $M$) to the ratio of the

This is the well-known relation that forms the basis for designing and analyzing the nozzle flow. It will be the basis for our final post on compressible flow next month.