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**Regularity and well posedness for the Euler system of gas dynamics**

We show that any dissipative (measure-valued) solution to the compressible Euler system that complies with the Dafermos criterion of maximal dissipation is necessarily an admissible weak solution. In addition, we propose a simple, at most two step, selection procedure to identify a unique semigroup solution in the class of dissipative solutions to the Euler system. Finally, we show a refined Dafermos' criterion that yields a unique solution of the problem for any finite energy initial data.