Thesis Committee (TC) meeting

1. MUSCL-Hancock reconstruction in blending limiter, extending proof of admissibility of MUSCL-Hancock method by Berthon for general Finite volume grids used by Gassner Et Al

2. Extension of Zhang-Shu's limiter to Lax-Wendroff schemes to obtain a provably admissibility preserving Lax-Wendroff scheme

3. Formal comparison of Lax-Wendroff and ADER schemes - equivalence for linear case and *closeness* for non-linear case

4. Mild instabilities in LW and RK schemes

If prepared in time

1. Aposteriori limiter

2. Hierarchical limiter to show that admissibility preserving Lax-Wendroff can be extended to any other limiter.

3. Over-dissipation in RK schemes and convergence issues in RK schemes, shown in Figure 12 and 6 of Overleaf

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MUSCL-Hancock plan

1. Explain proof with pictures
2. Explain how to enforce the admissibility criterion in practise

Results plan

1. Do all admissibility preserving tests. In 1-D, Sedov blast is the best.