Computational Aerodynamics Questions & Answers

Question by Student 201627128

Professor, in class when you explained how to find WENO3, you found a highest degree polynomial through the data points. Using a similar approach I was able to find u_L equal to 4.5 as in the solutions, however, when I apply the same strategy to find u_R , I get 4.25 instead, which does not match the solution. I tried to do it in reconstruction evolution and again found 4.5 for u_L but this time u_R becomes 5. Is there a separate approach to find u_R ?

I don't understand why using reconstruction-evolution would give you a different answer. You need to find $u_{\rm R}$ by interpolating u. Once u is interpolated and $u_{\rm L}$ and $u_{\rm R}$ are found, then apply reconstruction evolution.

Question by Prasanna

Professor, for assignment #7, question #3 (c), I did my calculation as follows: I get a slightly different answer from my calculation. However, the answer is the same as the one posted only if I choose the wavespeed a = u and not a = u/2.

For f and u given, there is only one wave speed not two.