

DPW-7 Summary of Participant Data

CRM Case 6

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Knowledge for Tomorrow



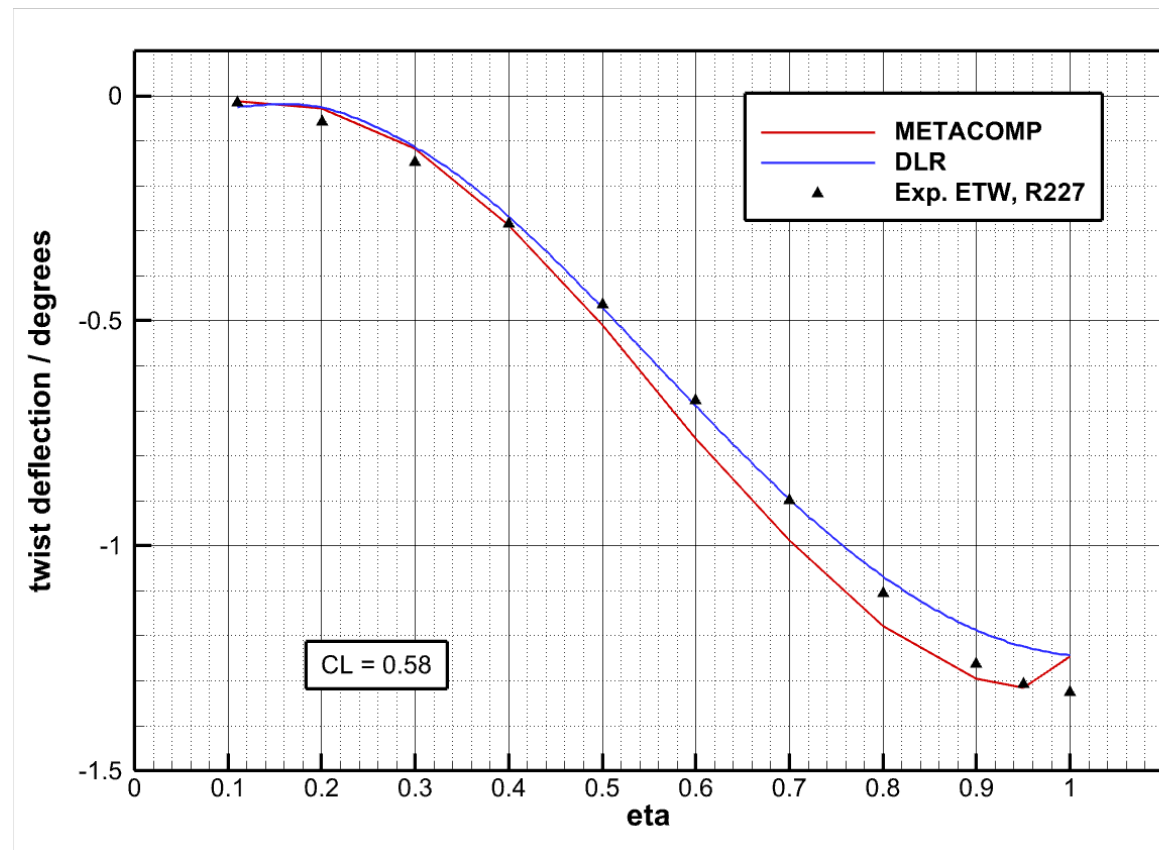
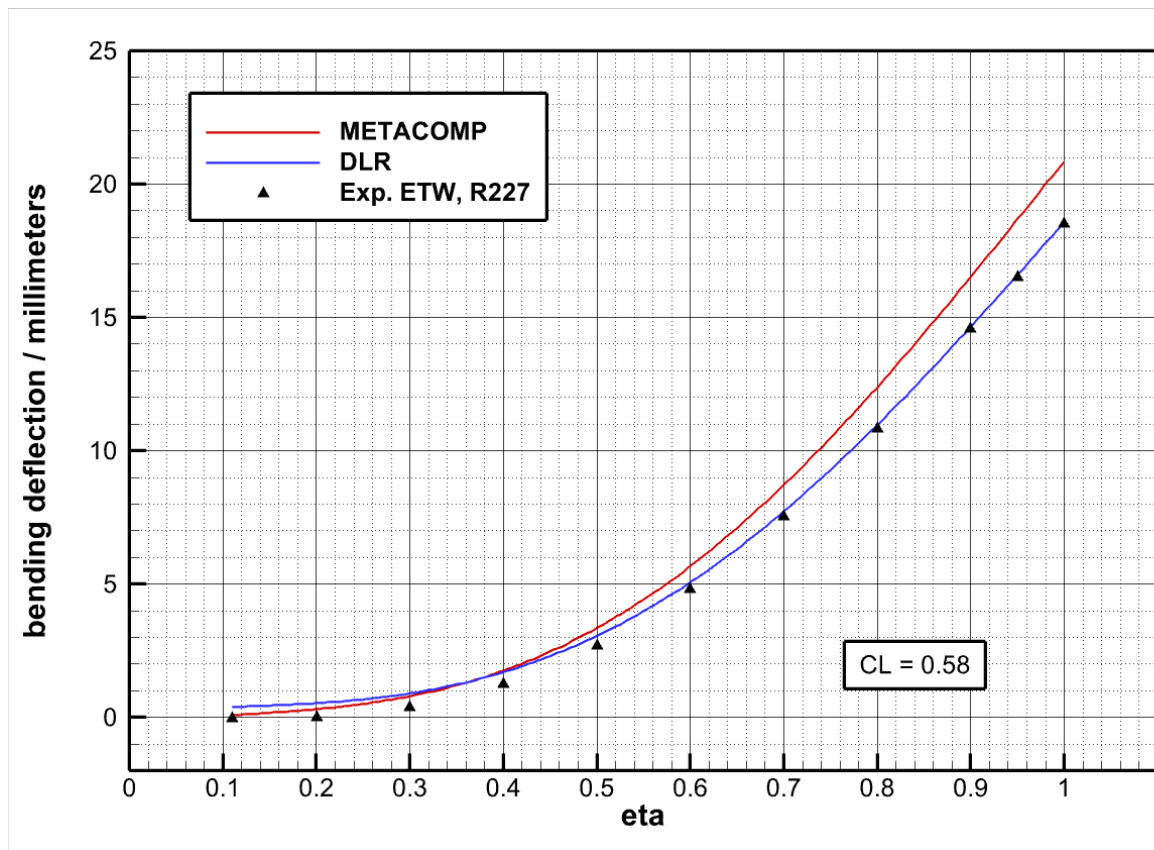
Background

- **only 2 Sets of Participant Data submitted**
- **Data Sets received:**
 - Wing Bending & Twist Deformations
 - Sectional Lift & Moment vs. Span
 - Sectional Cuts
- **Participants:**
 - Metacomp Technologies Inc., USA
 - German Aerospace Center (DLR), Germany



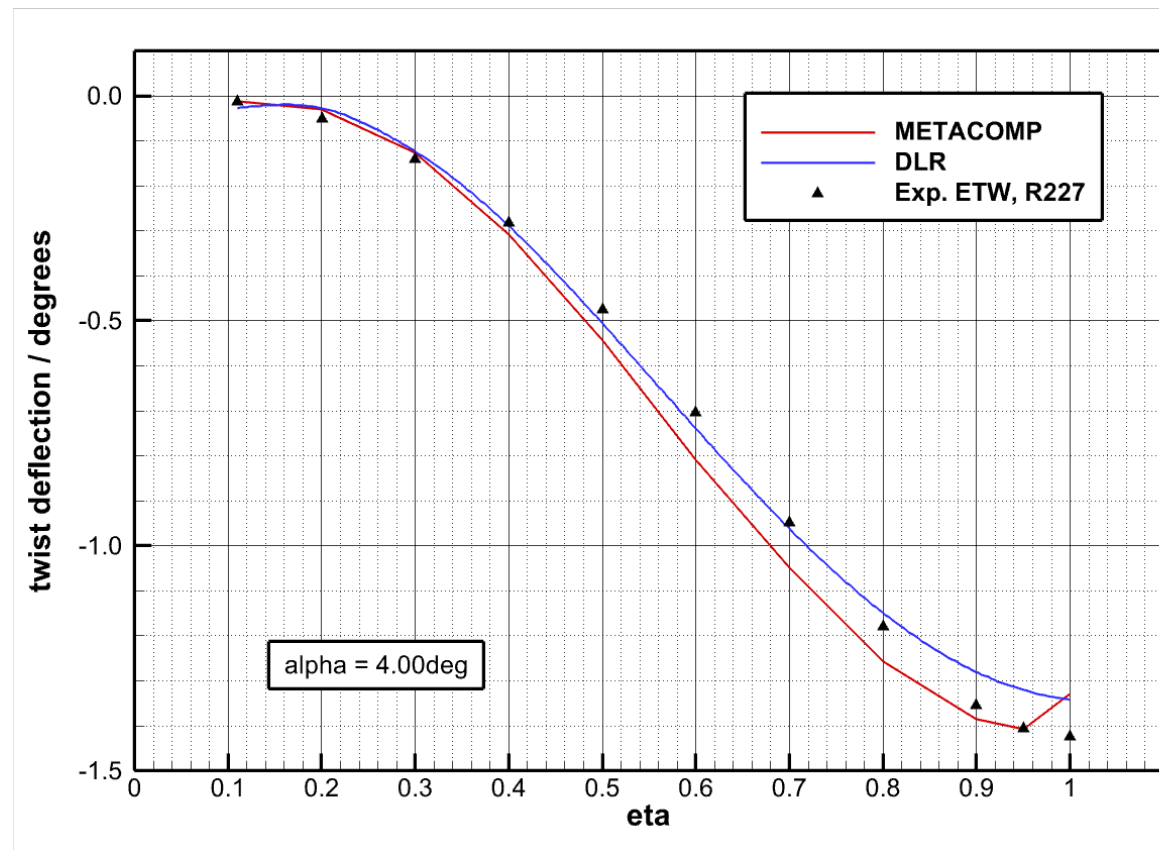
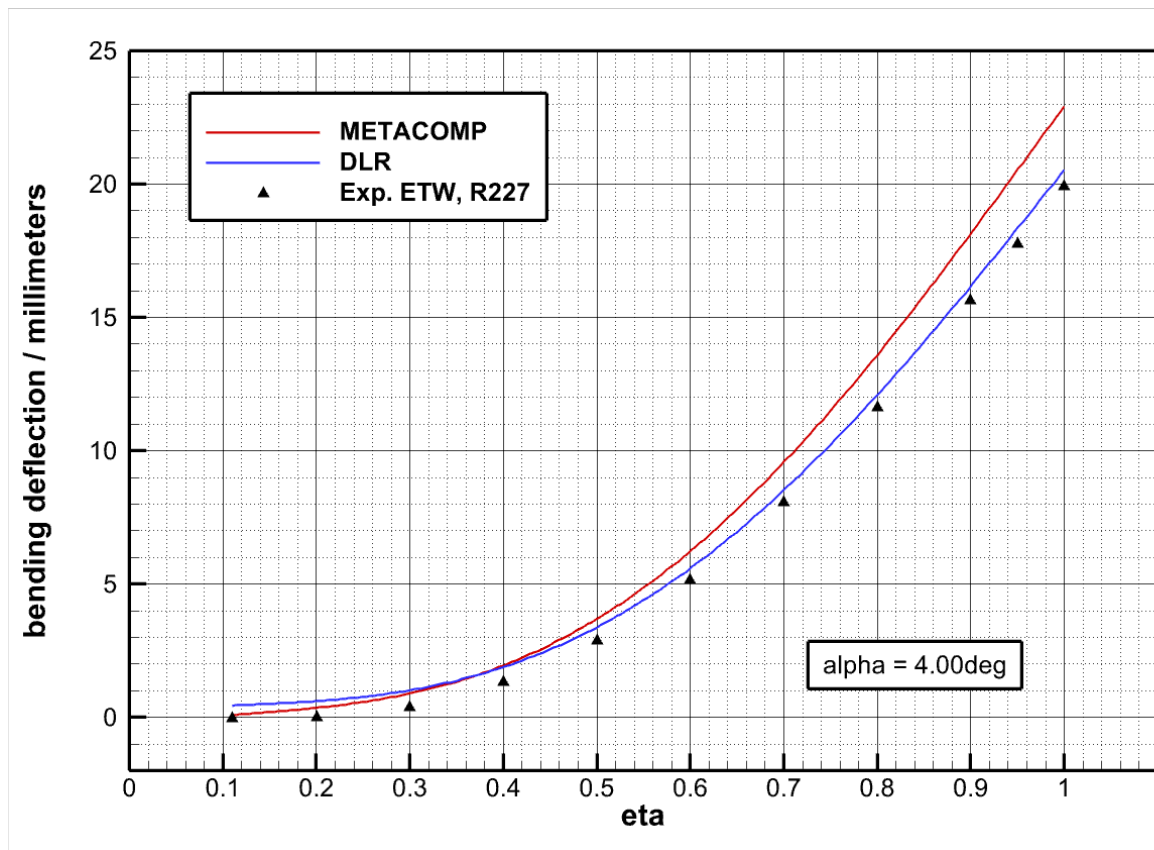
Comparison of Test Case 6 Participant Results

- Wing Bending & Twist Deformation -



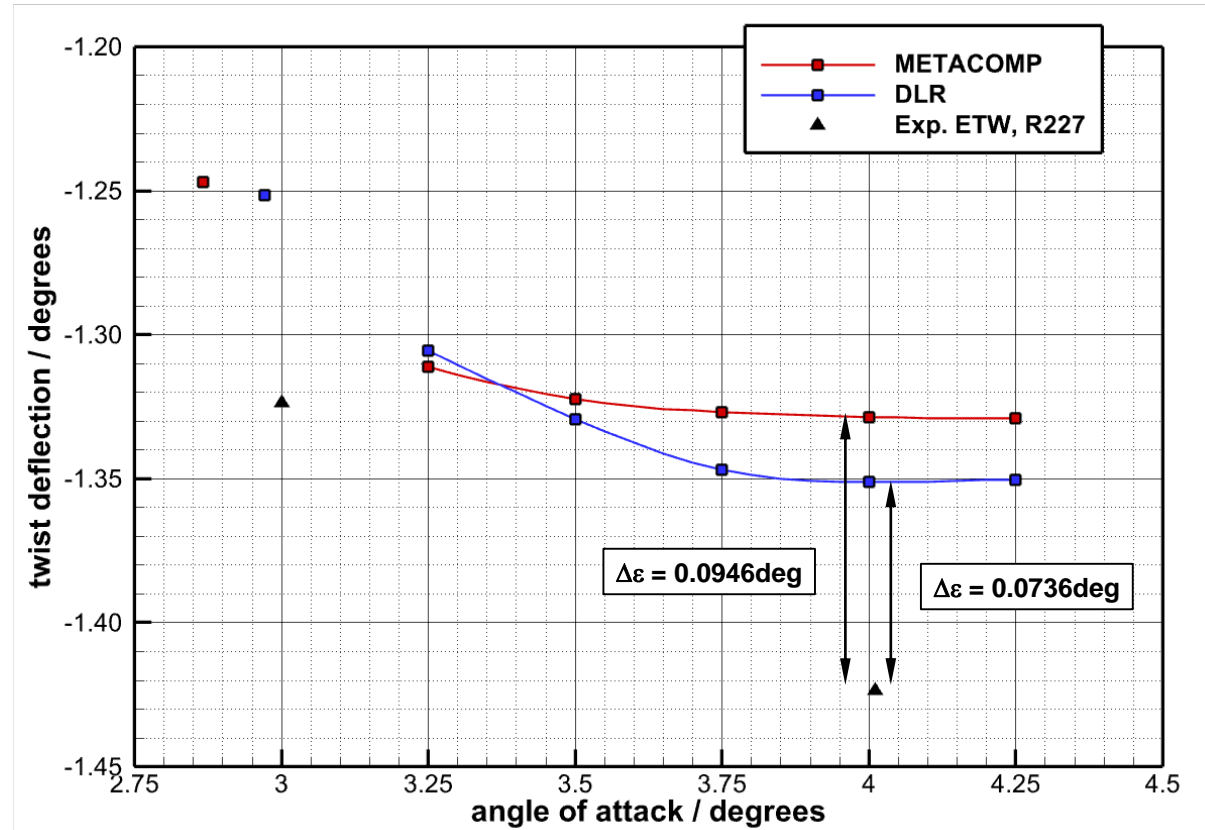
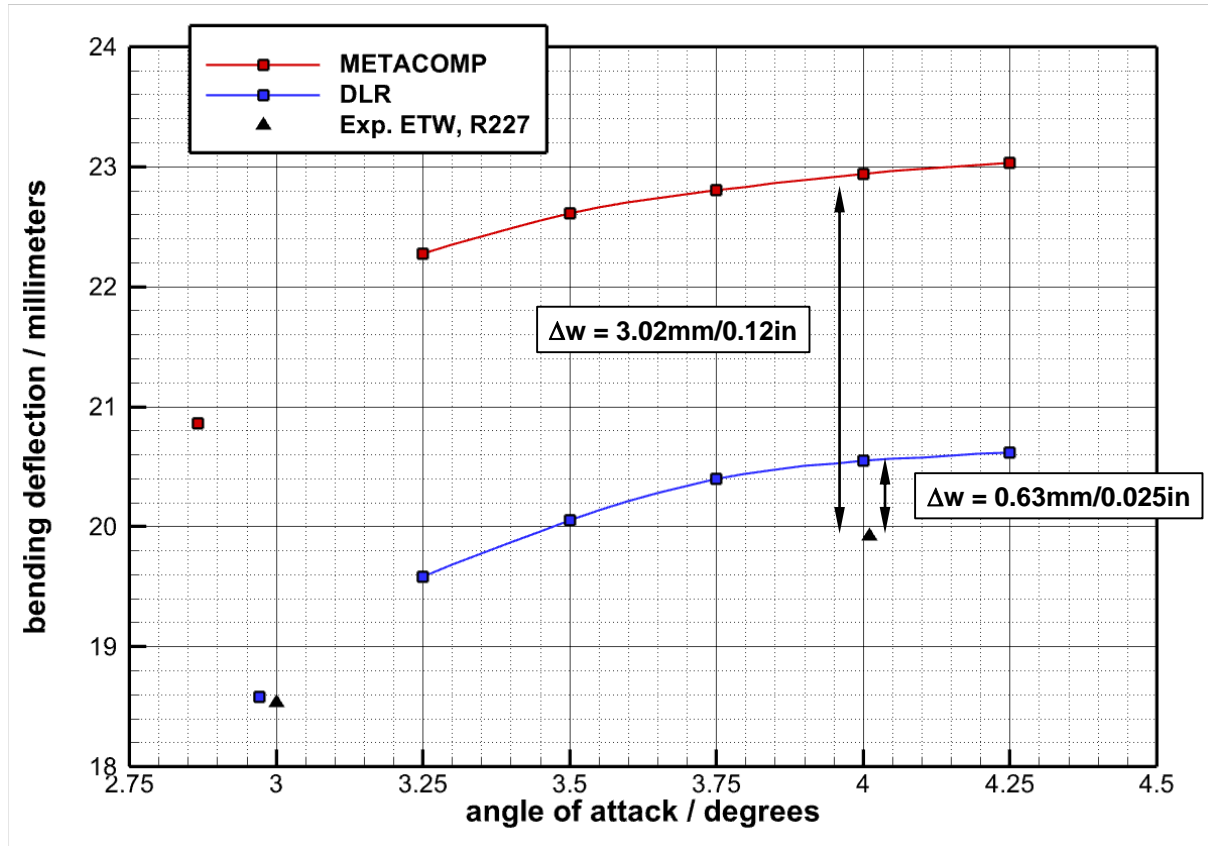
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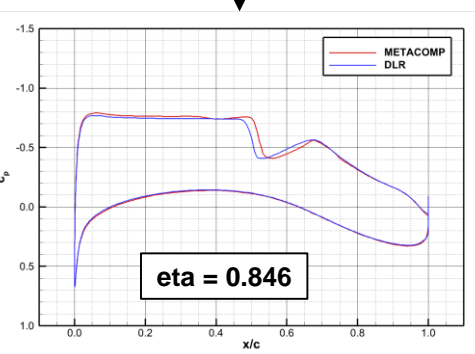
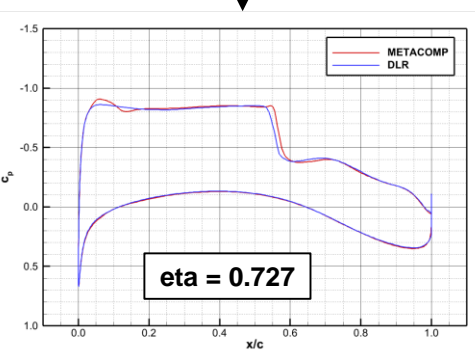
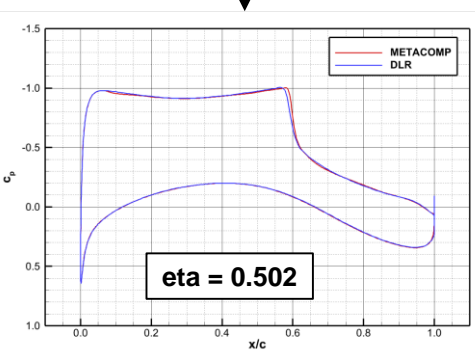
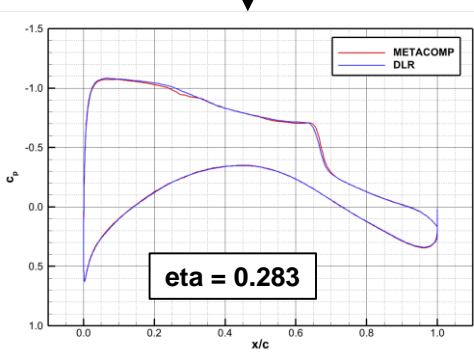
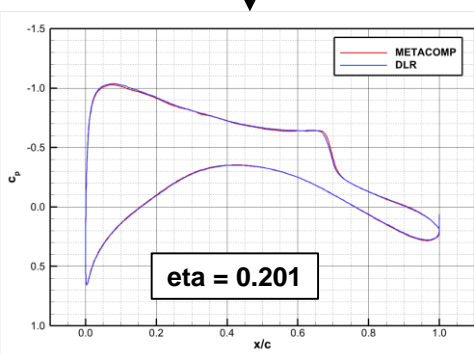
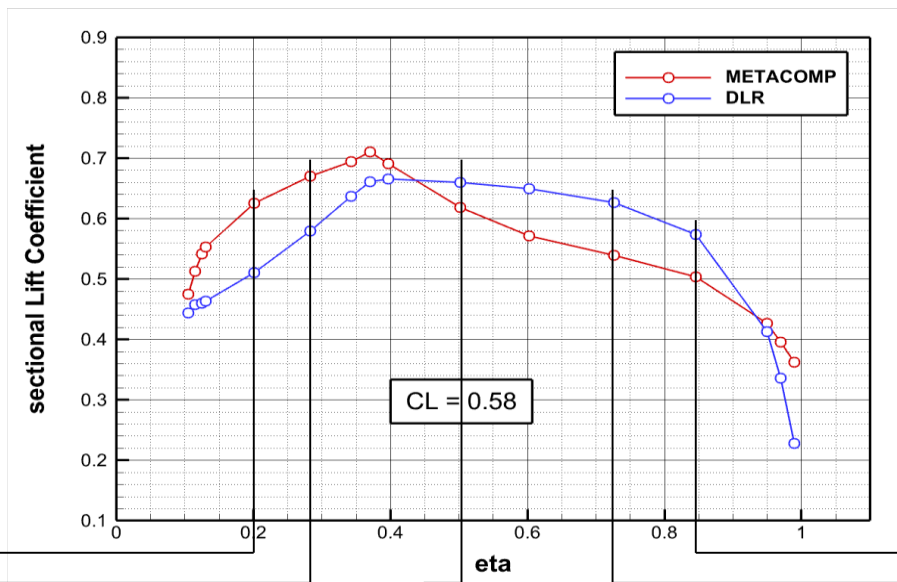
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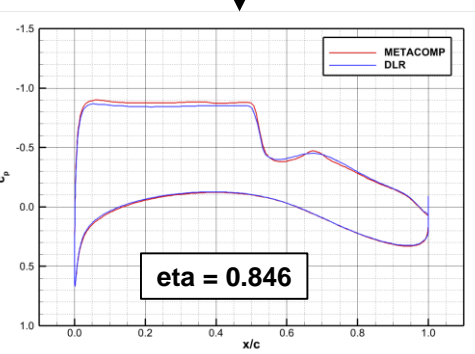
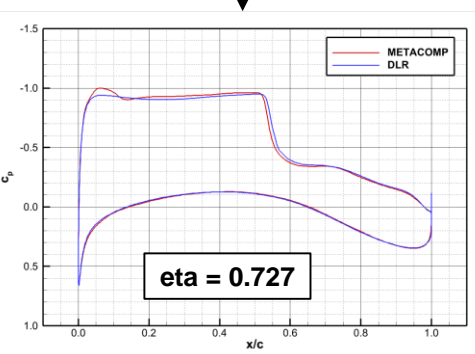
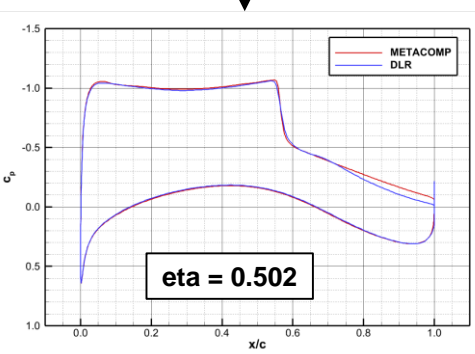
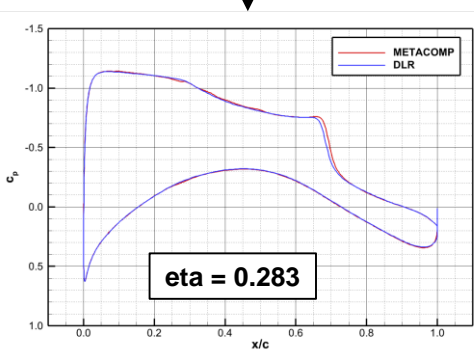
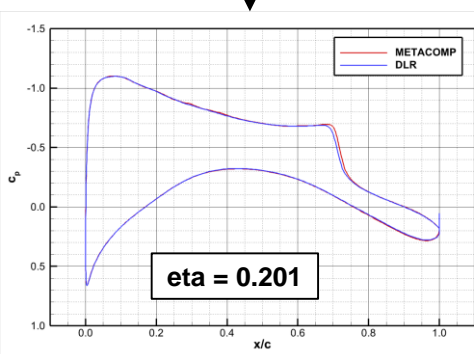
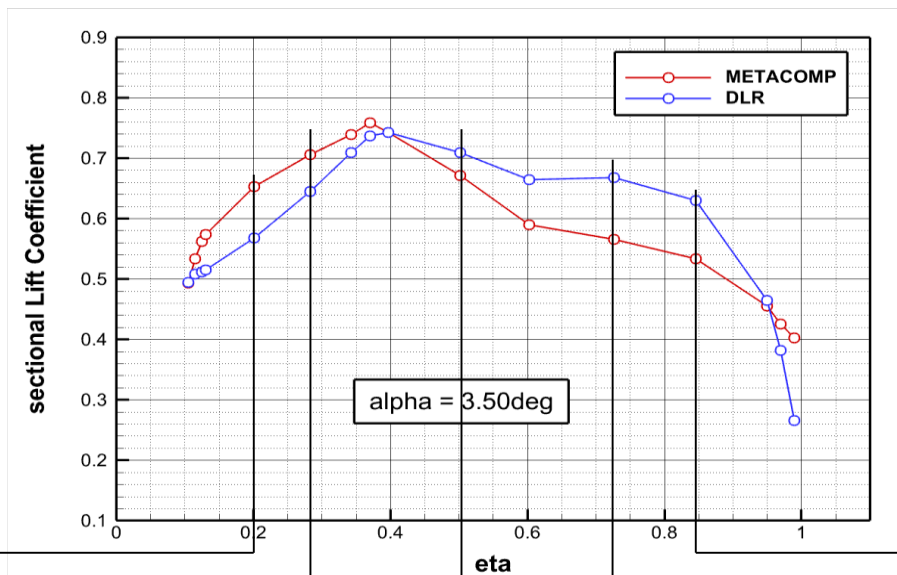
Comparison of Test Case 6 Participant Results

- Lift Distribution vs. Span & static Pressure Distributions -



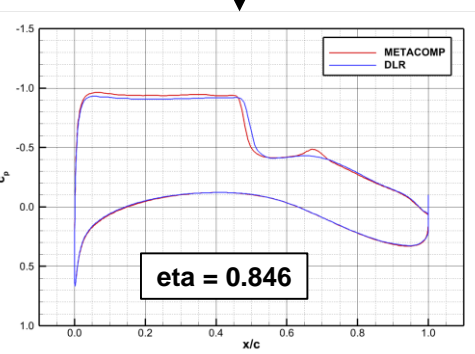
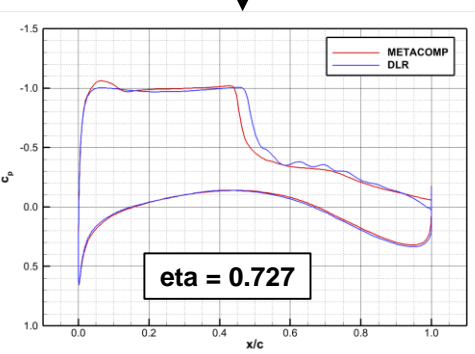
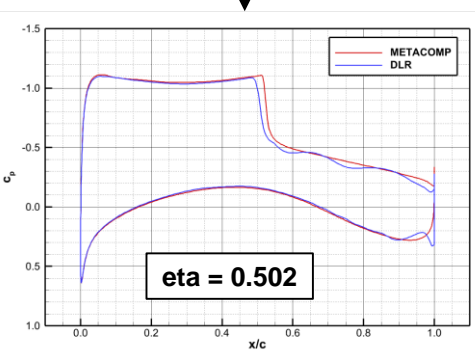
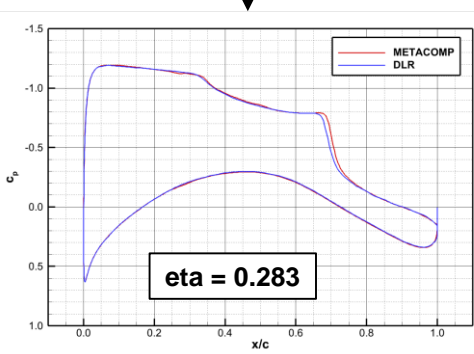
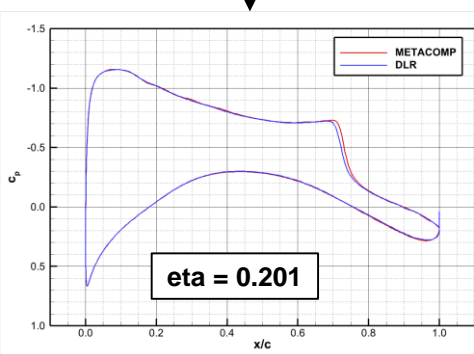
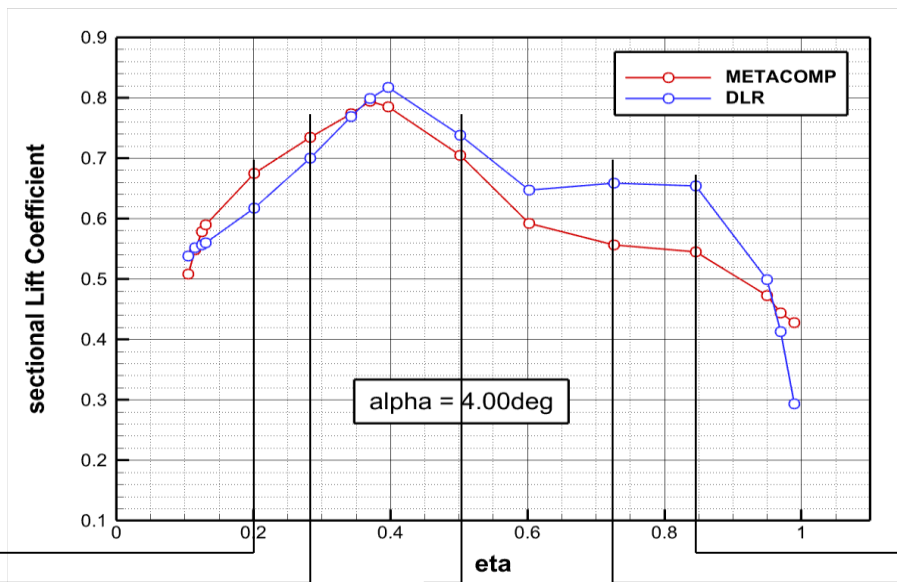
Comparison of Test Case 6 Participant Results

- Lift Distribution vs. Span & static Pressure Distributions -



Comparison of Test Case 6 Participant Results

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Summary

- **Deviations of computed Deformations to ETW Measurements generally small.**
- **some Differences in Bending, but good Agreement for Twist between Participants.**
- **very good Agreement of static Pressure Distributions over entire Wing and for all Angles-of-Attack.**
- **distinct Differences in spanwise Lift Distribution observed.**
 - not consistent with matching static Pressure Distributions.
 - possible Bug in Lift Integration Tool?

