



Entwurf und Vermessung von 2 Profilen für Segelflugzeuge der Standardklasse

W.Würz

- Motivation, Zielsetzung
- Auslegung der Profile
- Vergleichende Messungen mit Zackenband
und modifiziertem Noppenturbulator

Symposium für Segelflugzeugentwicklung 1997, 11./12. November, Stuttgart

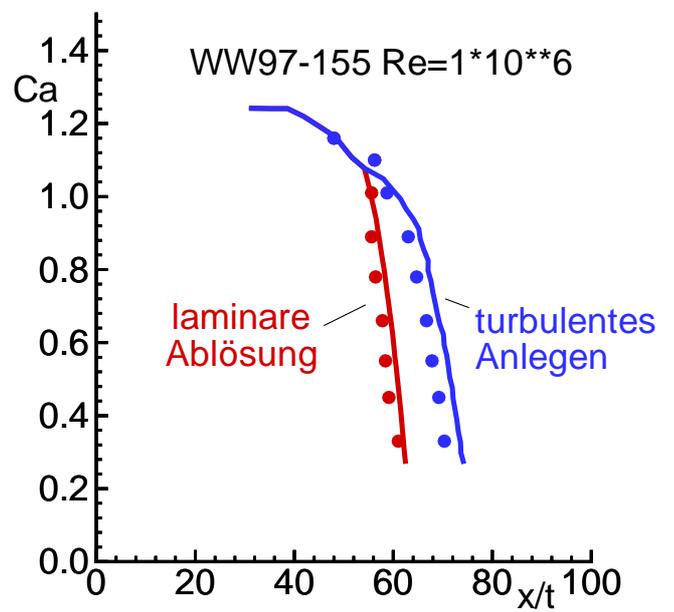
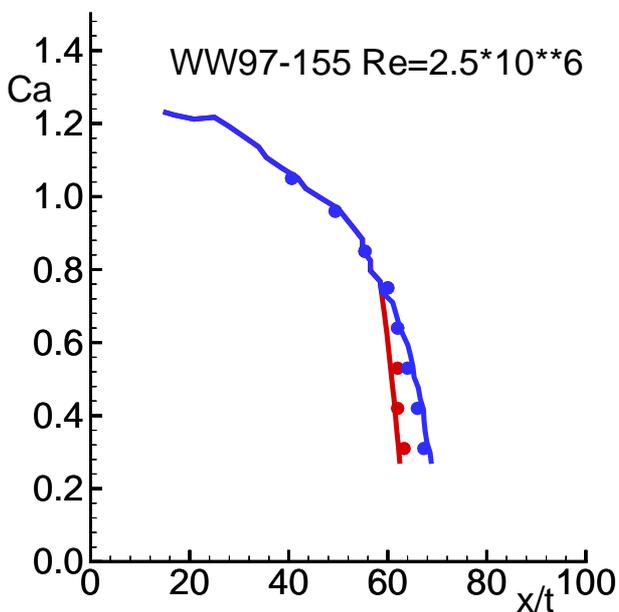
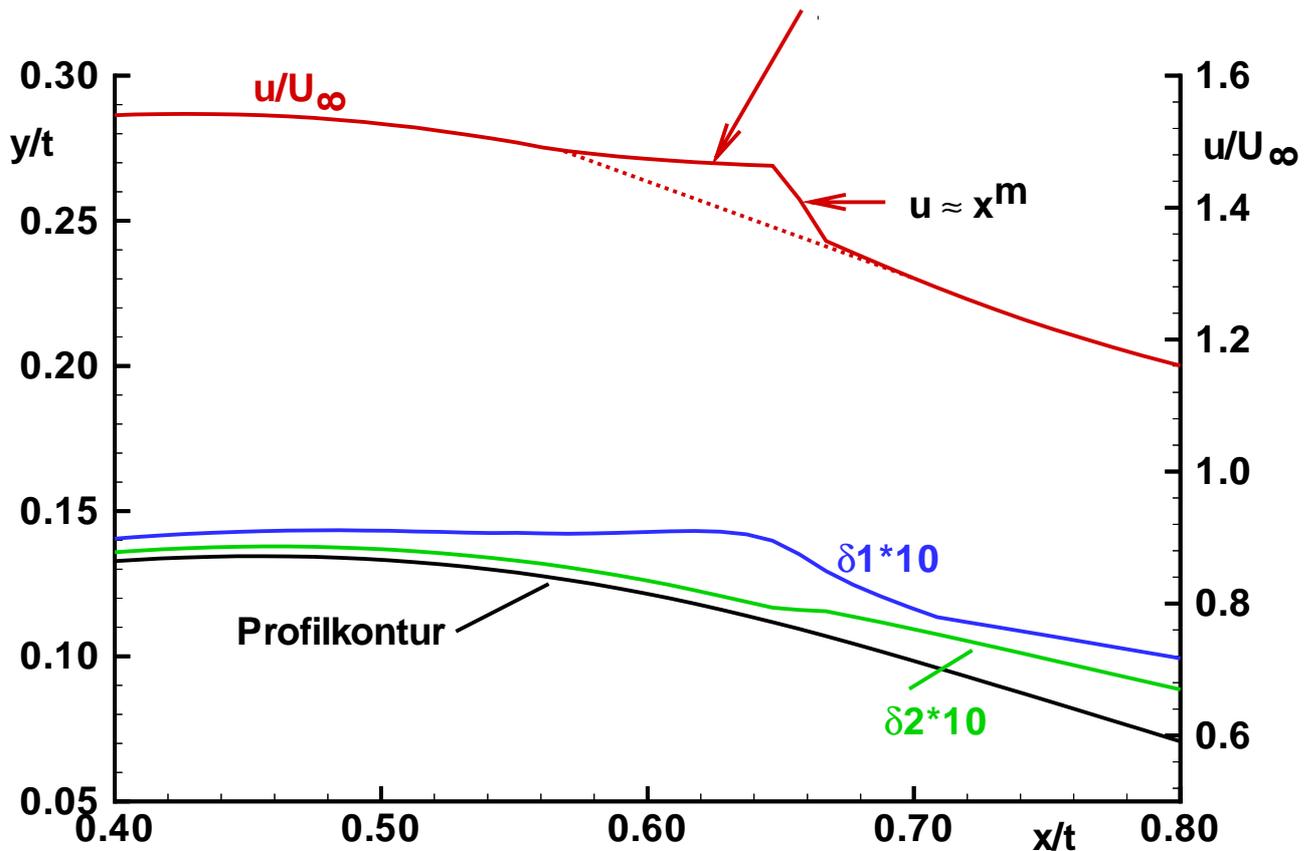
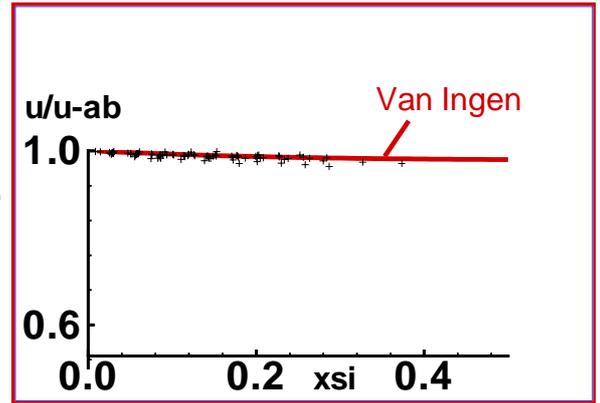


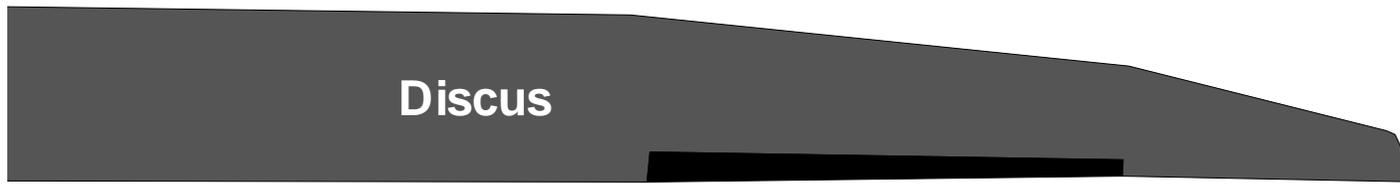
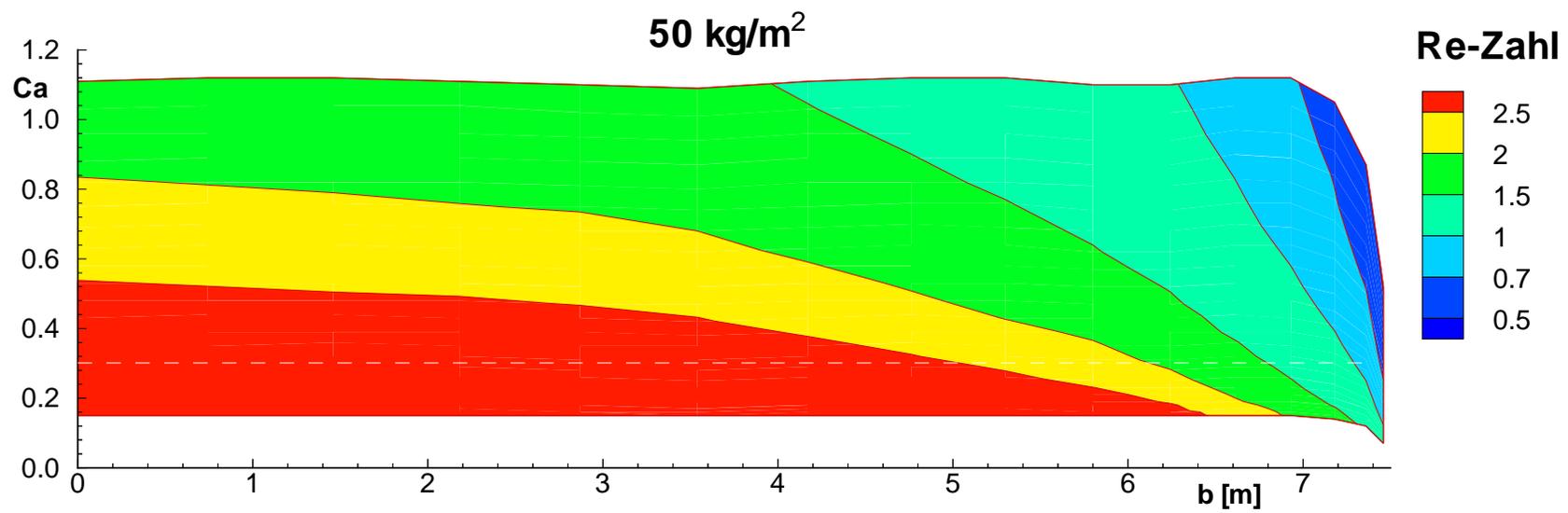
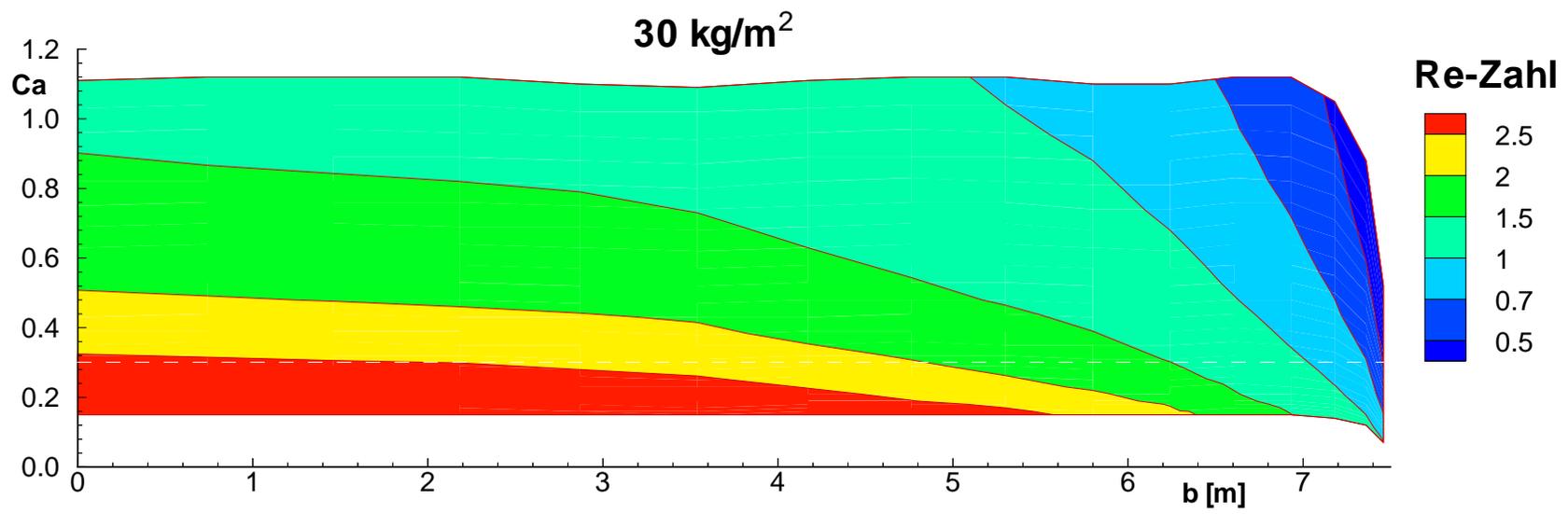
Berechnung laminarer Ablöseblasen:

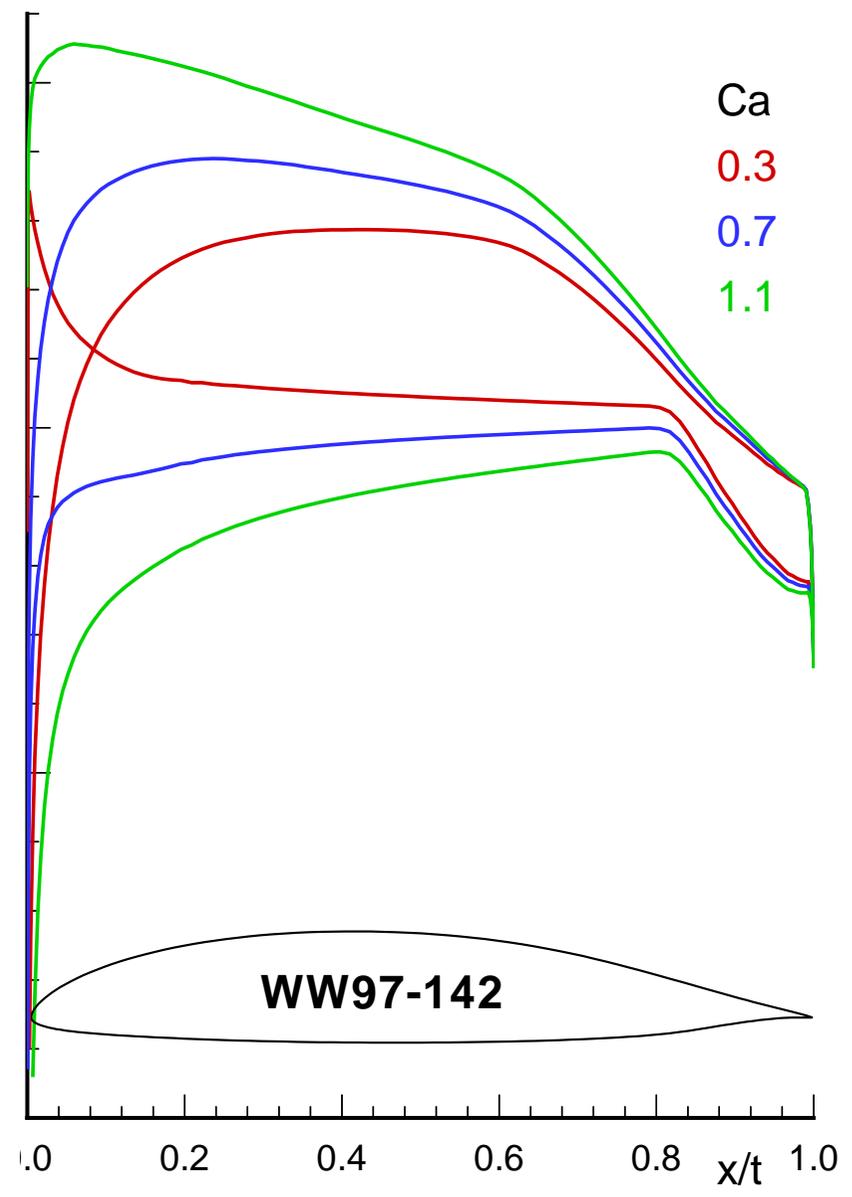
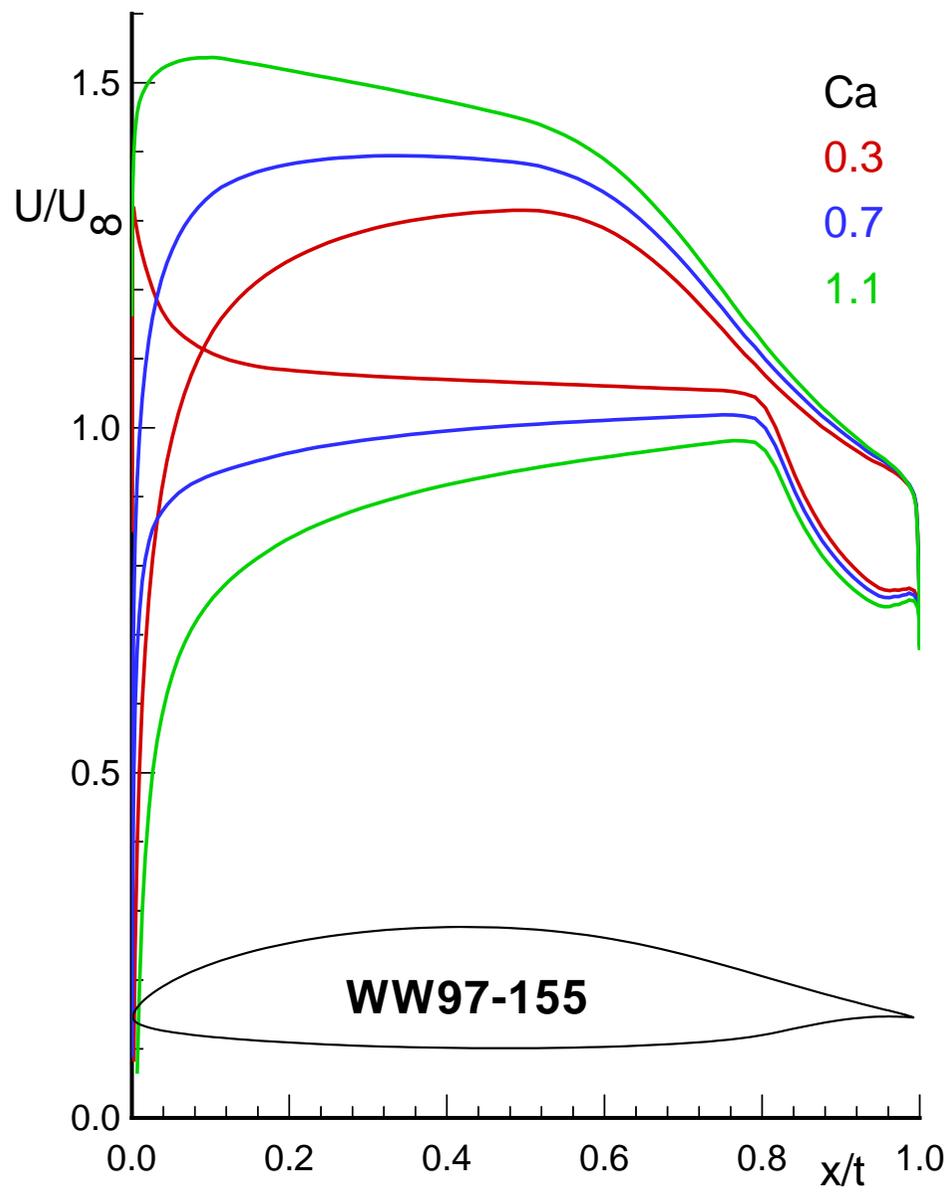
iteratives Quell-Senkenverfahren

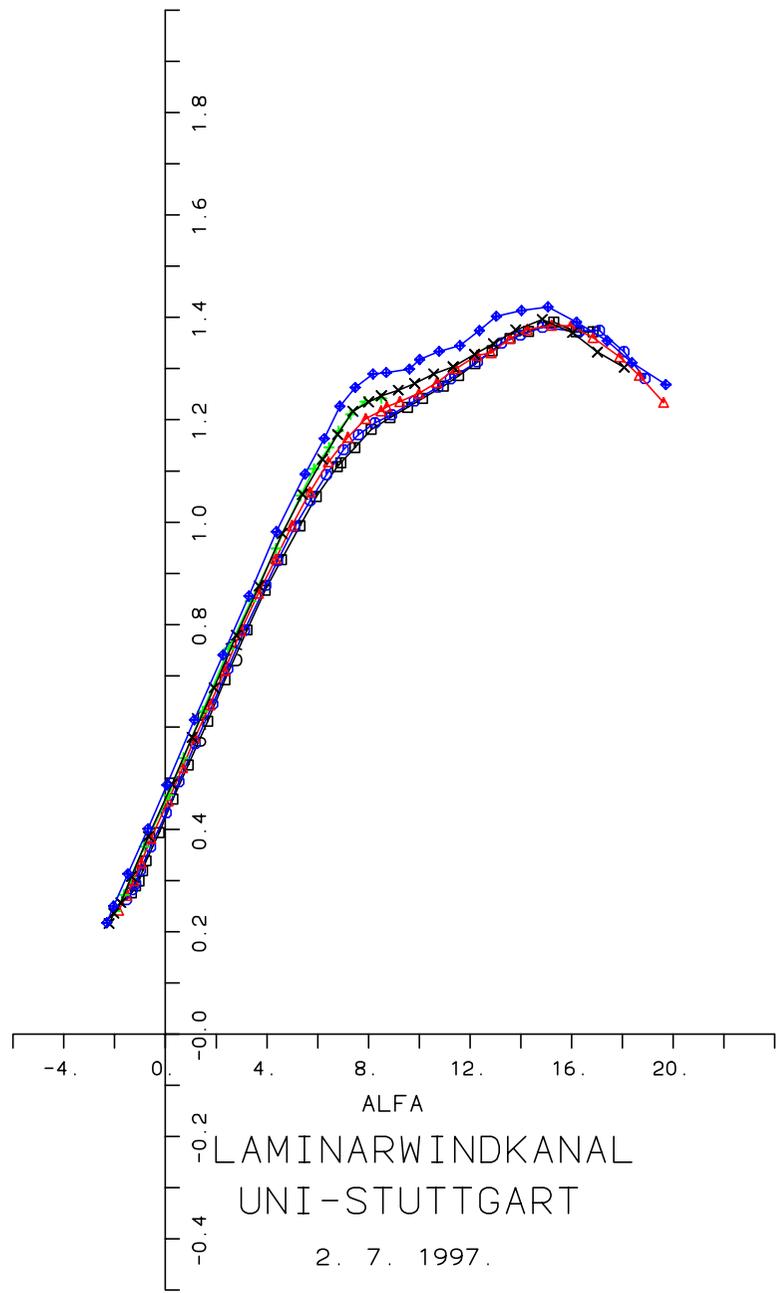
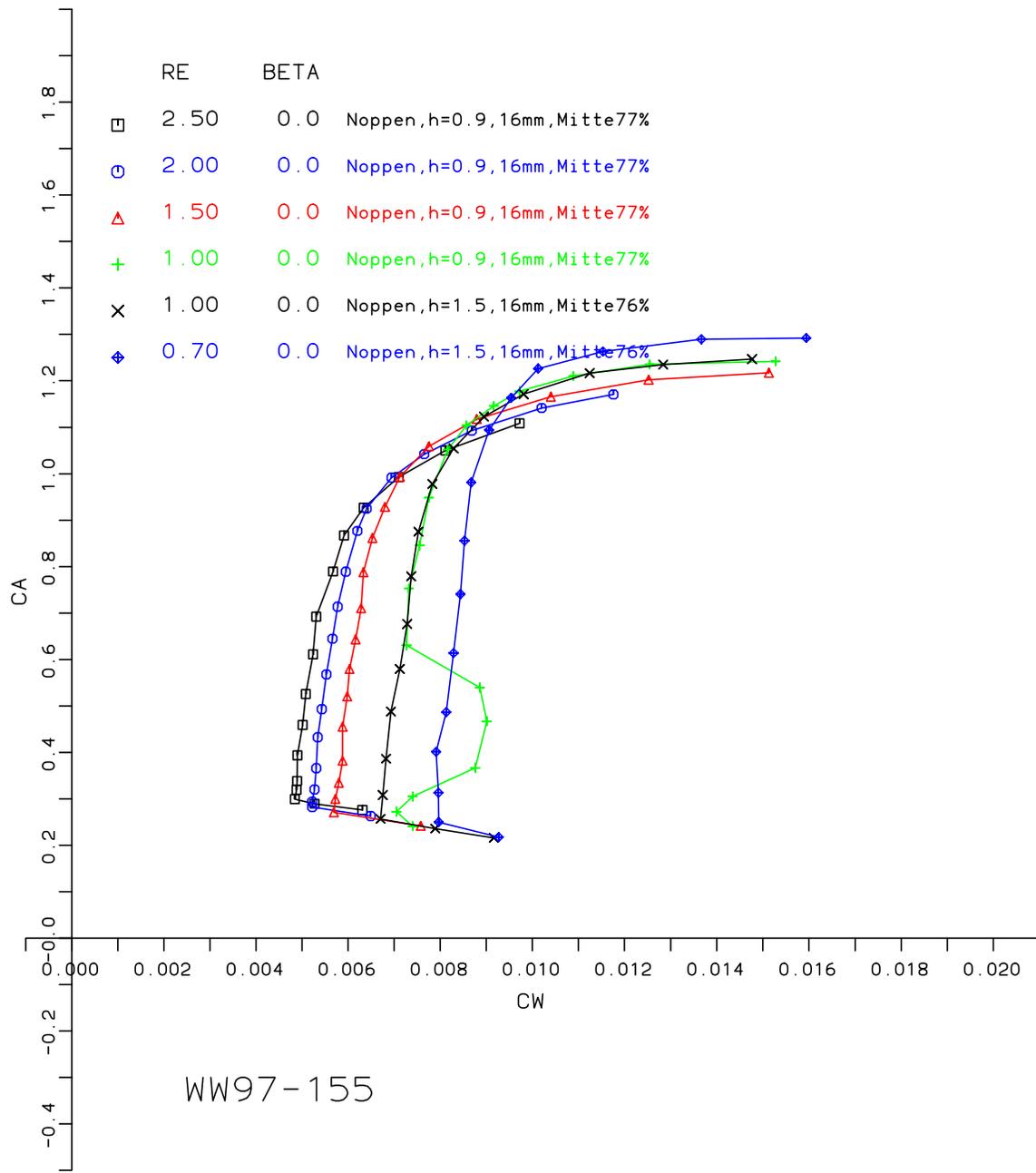
Vorgabe: Potentialgeschwindigkeitsvert.
empirische U-Vert. Blase

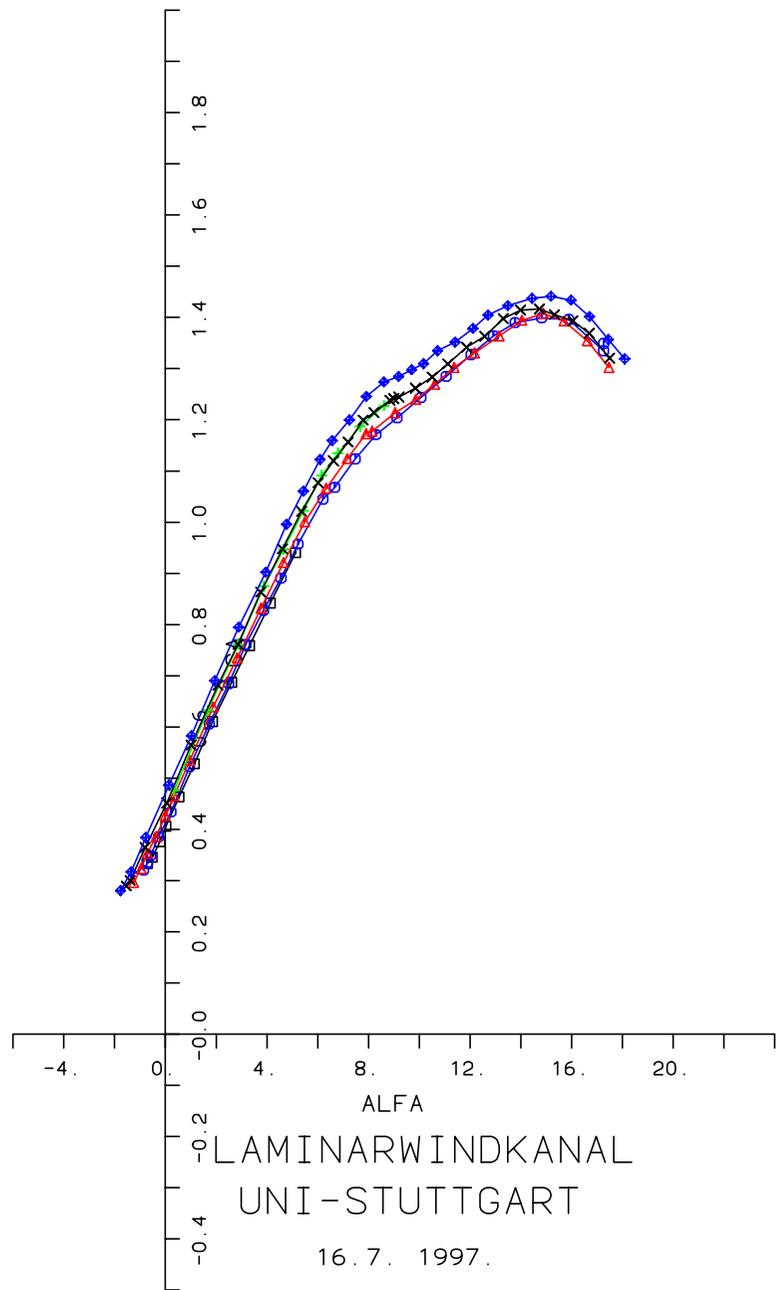
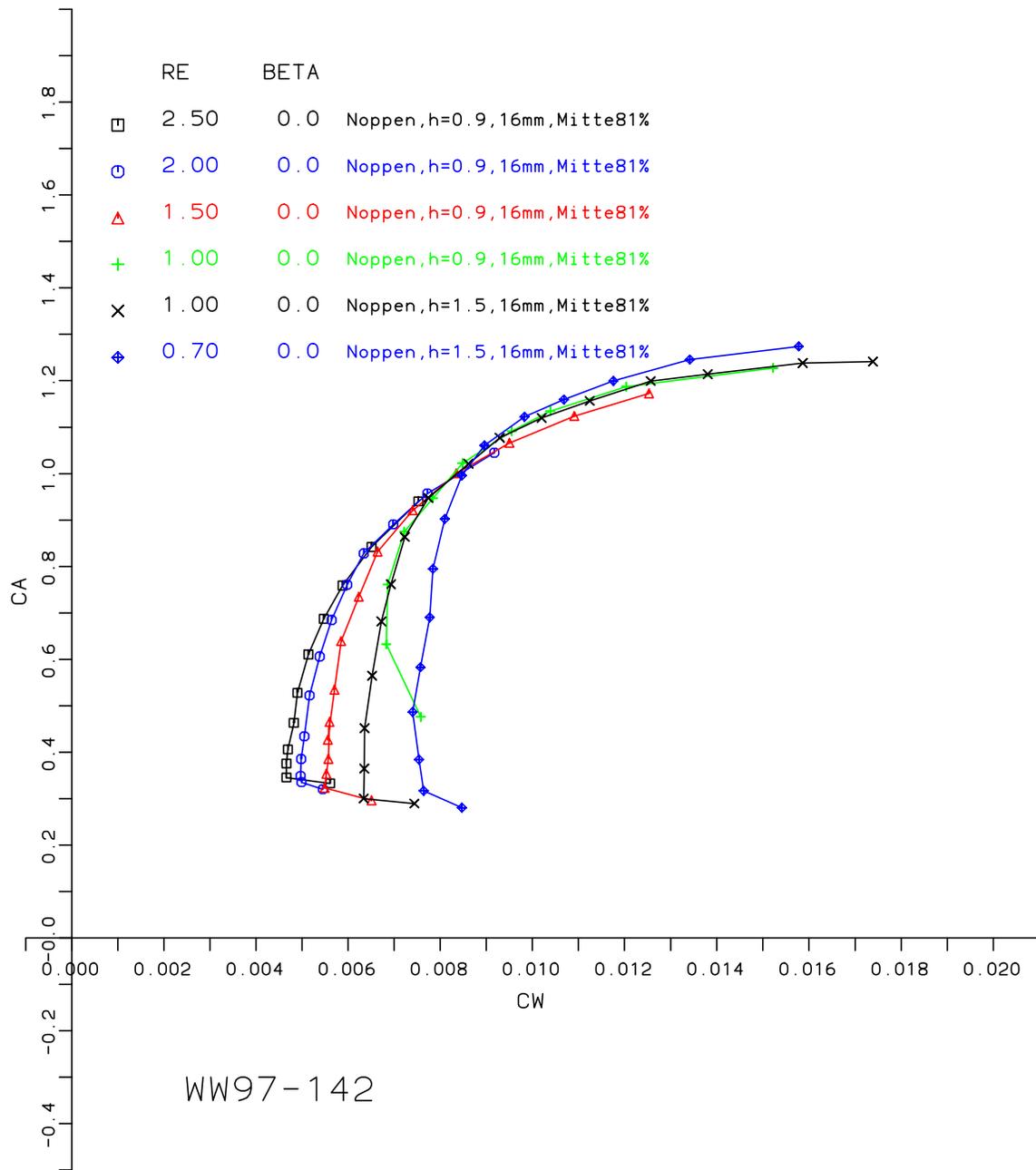
Ergebnis: Verdrängungsdicke
Impulsverlustdicke

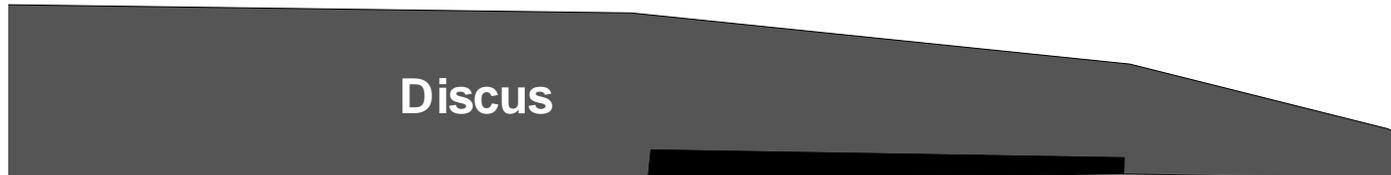
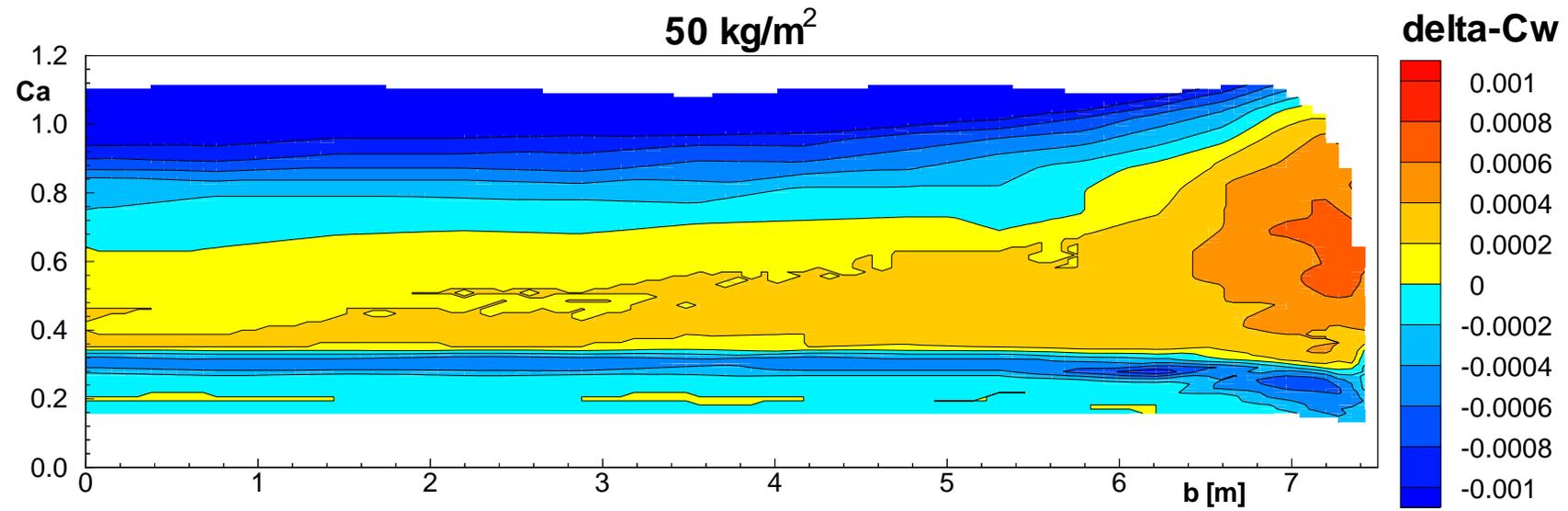
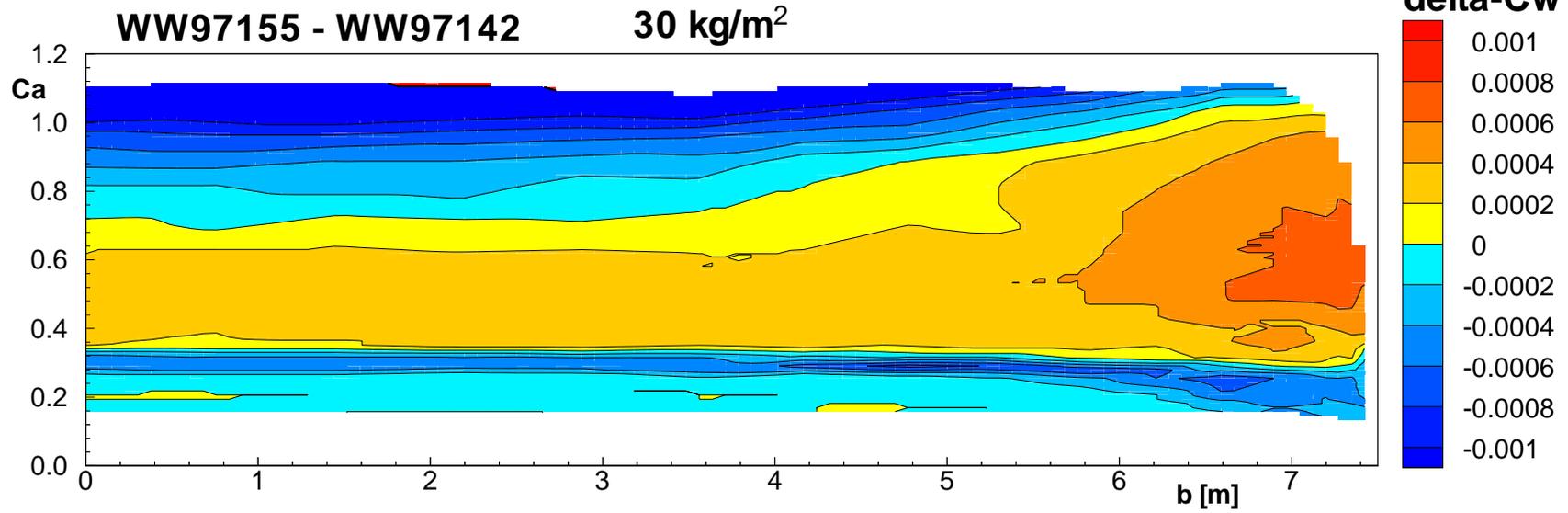






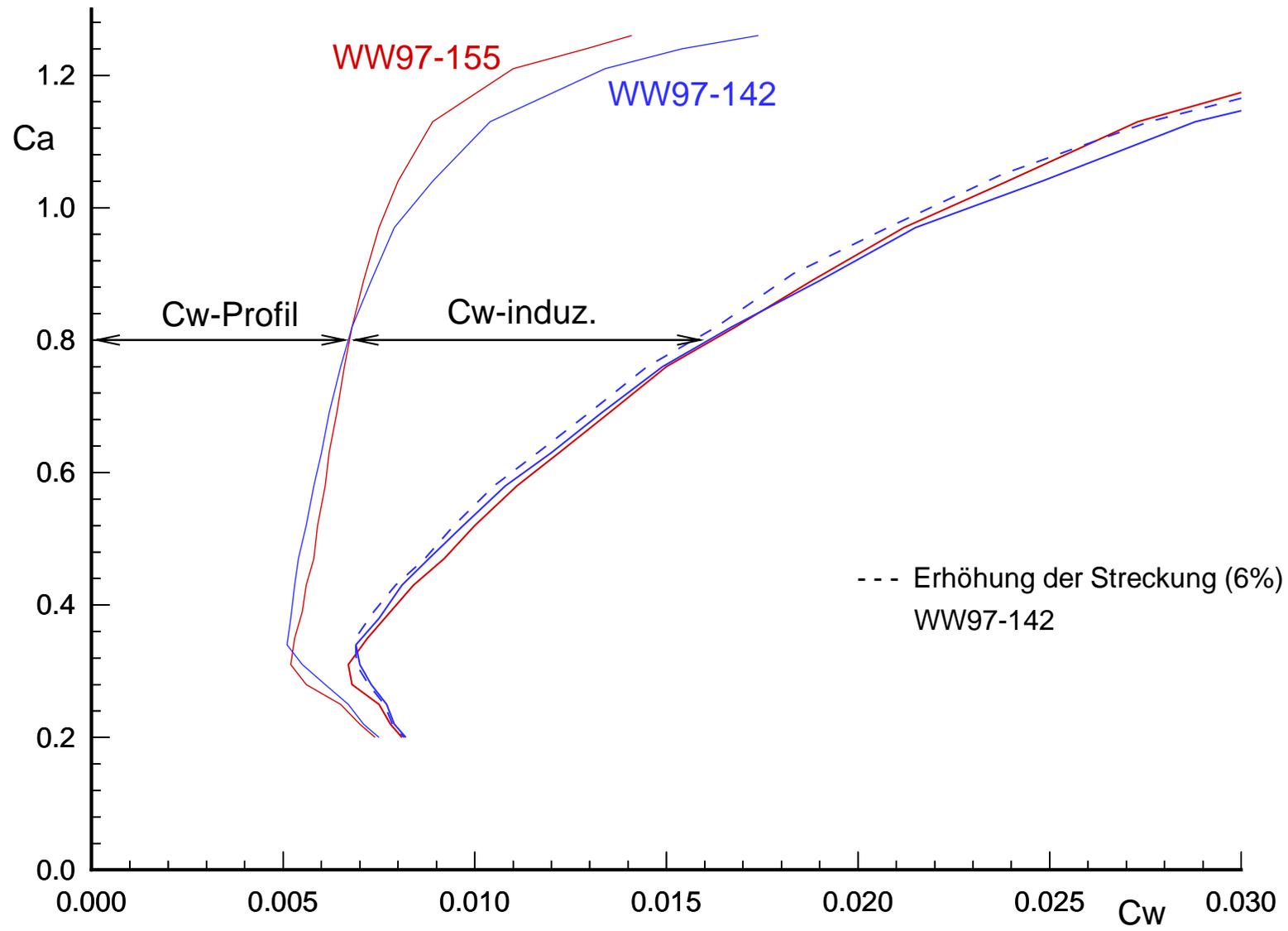


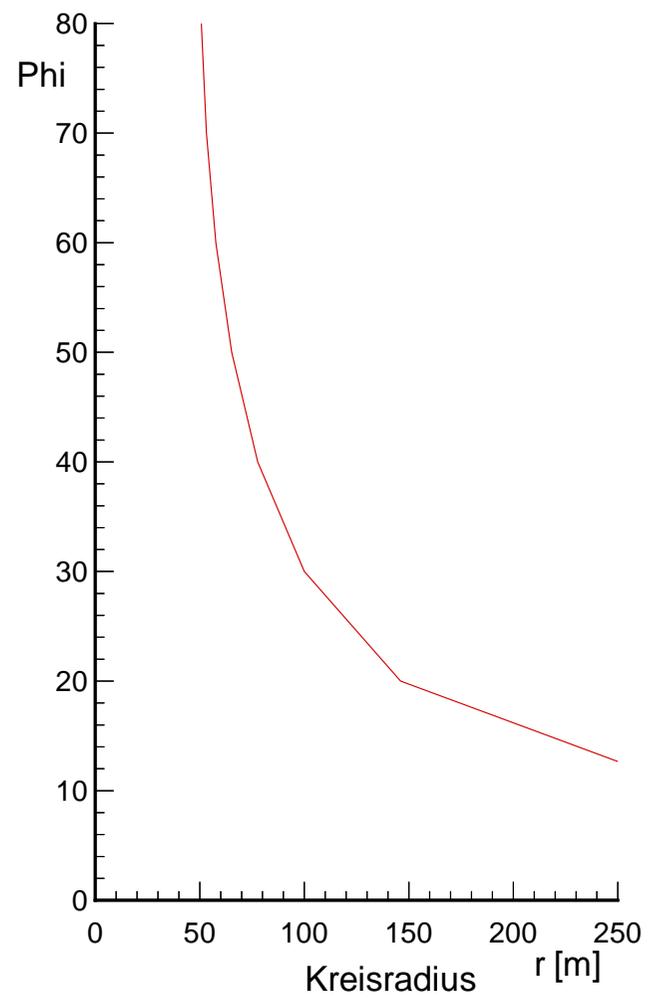
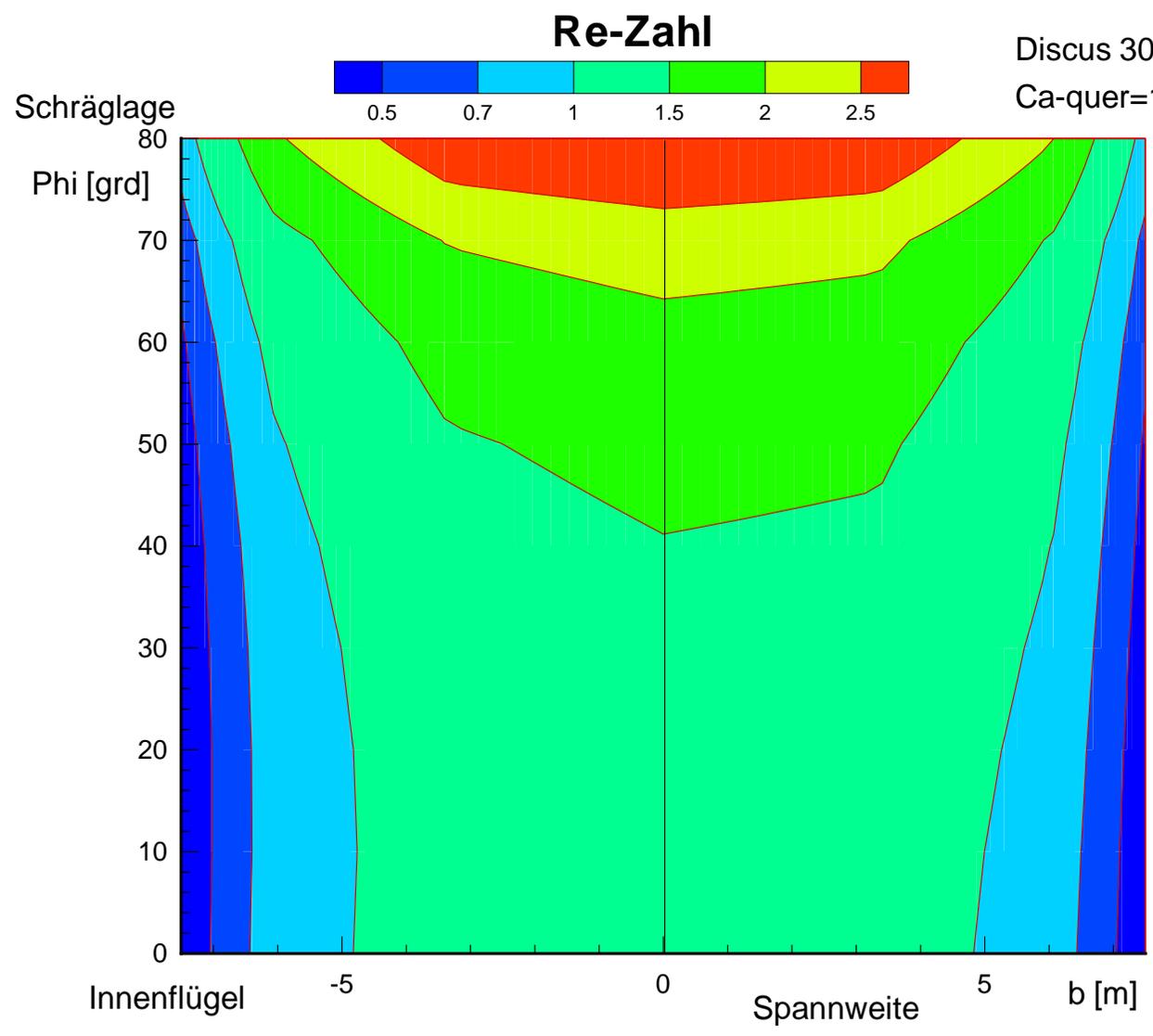


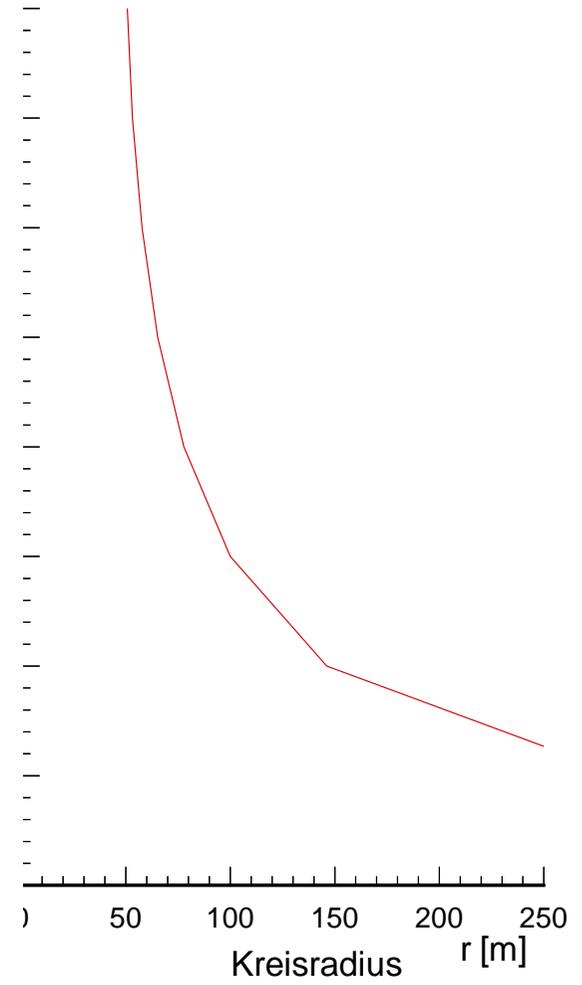
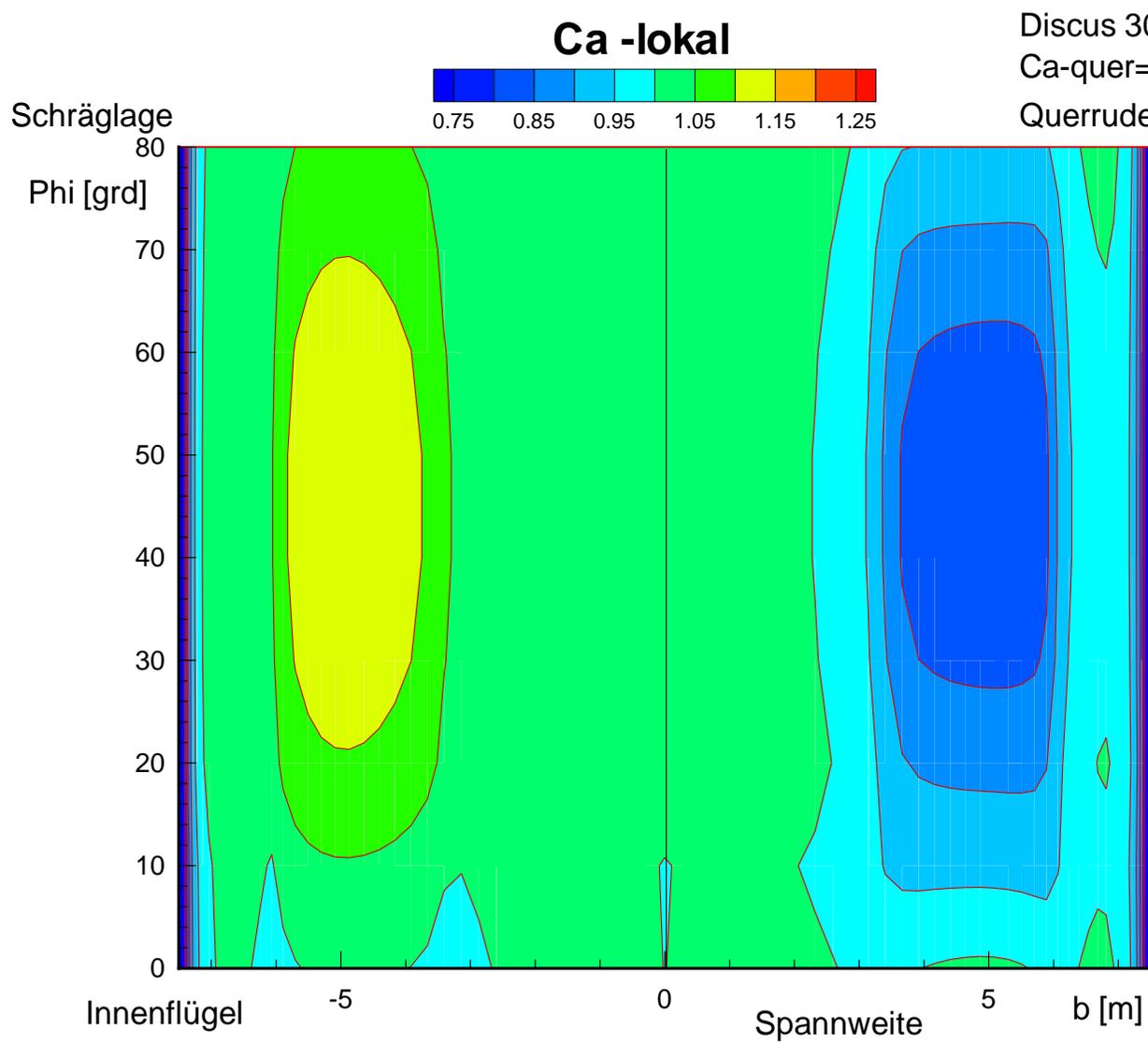


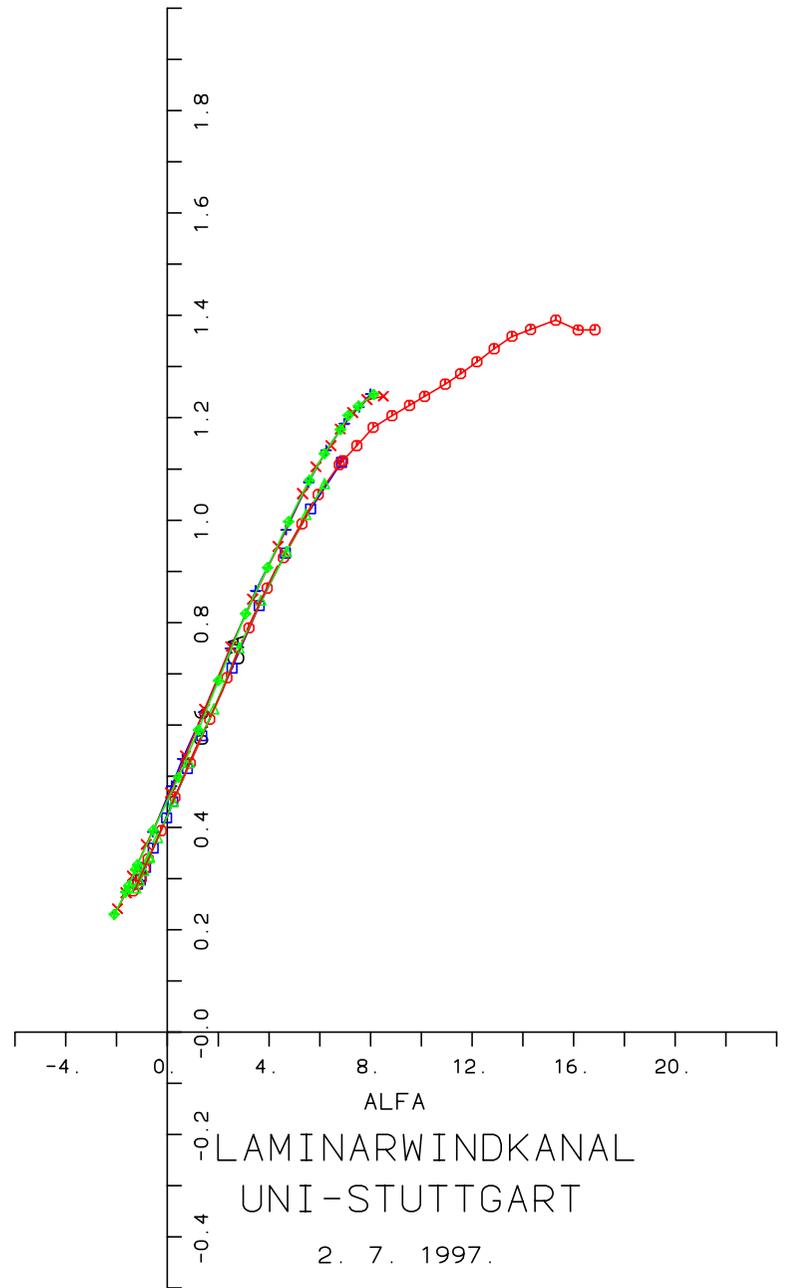
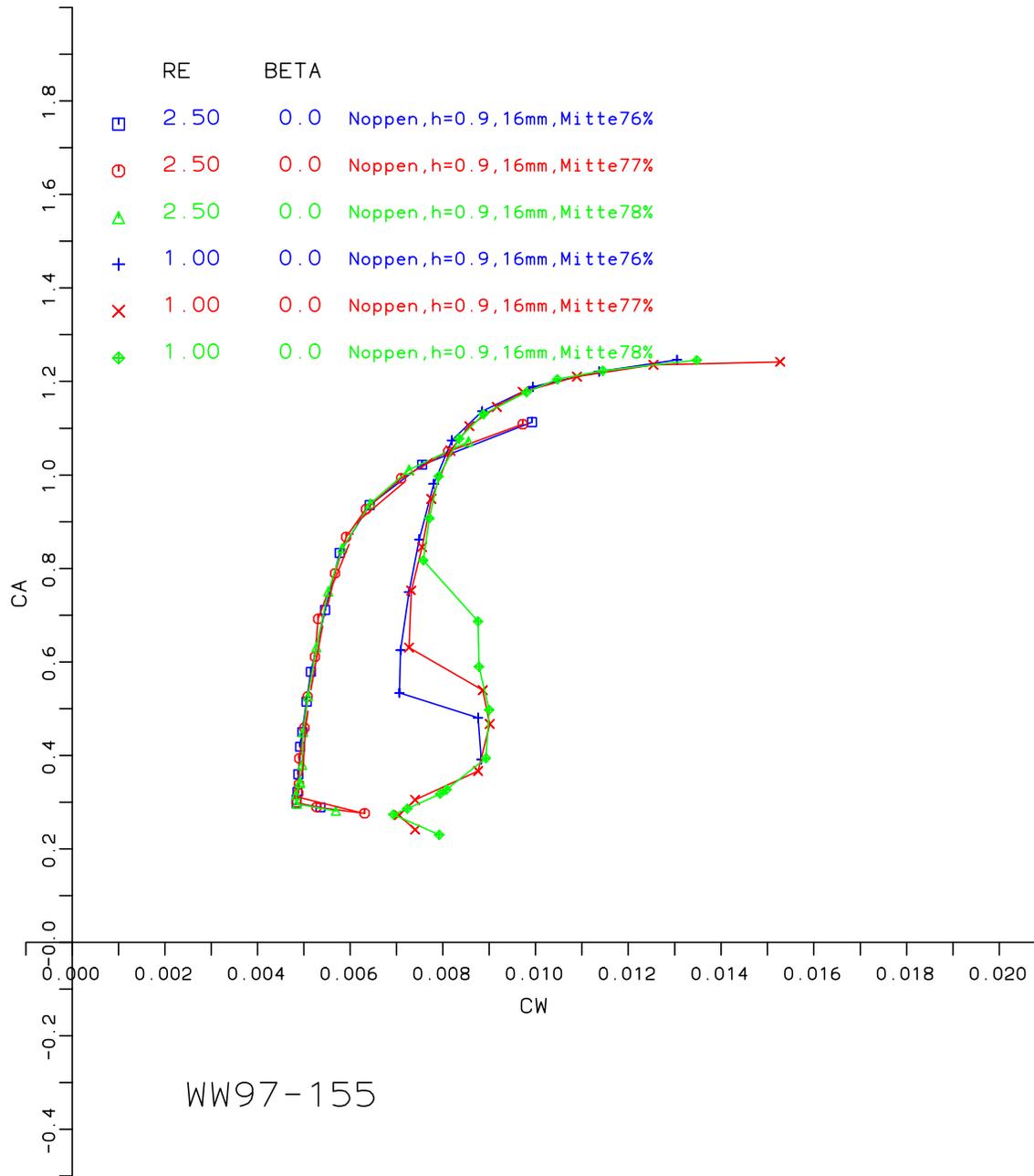


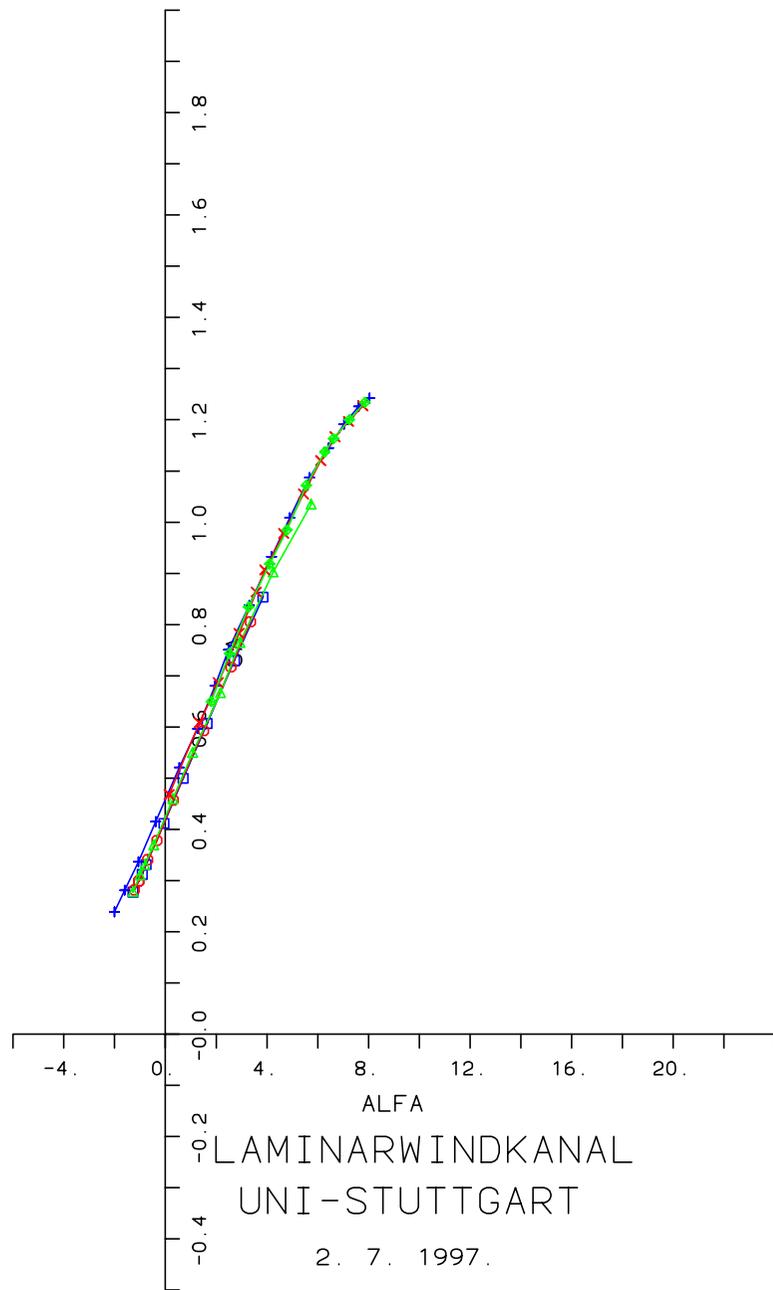
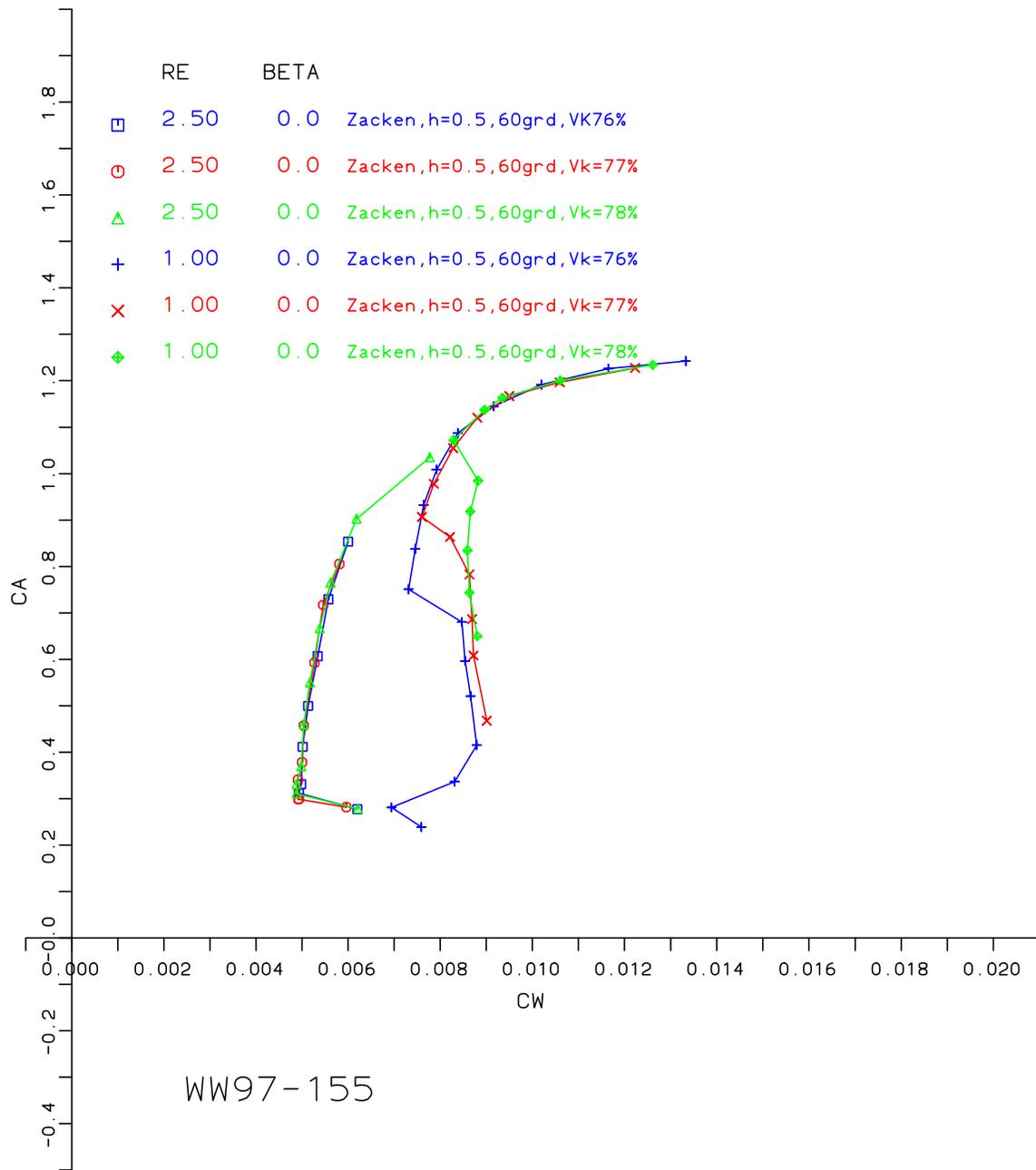
Widerstandsbilanz am Flügel (30kg/m)²

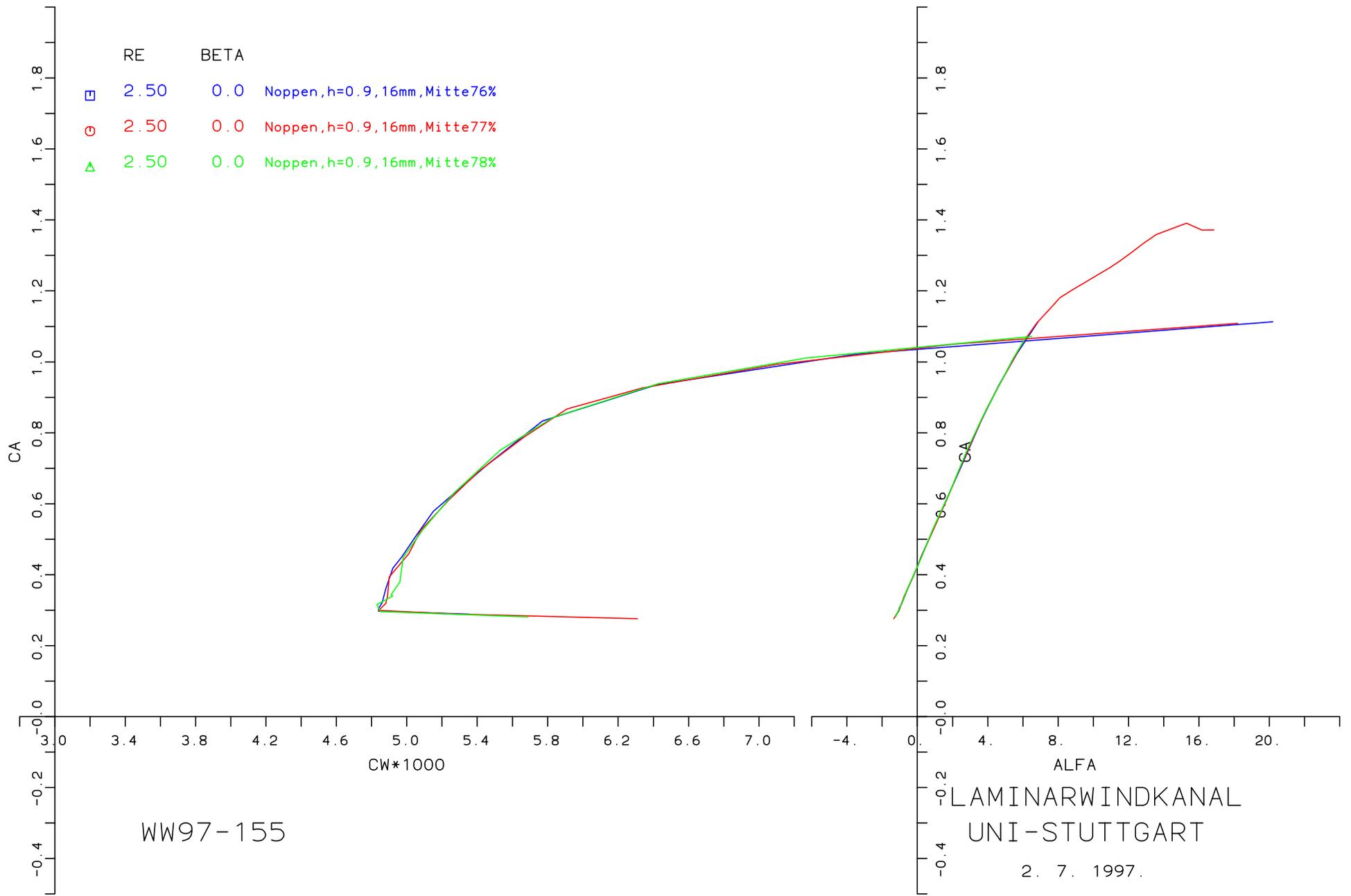


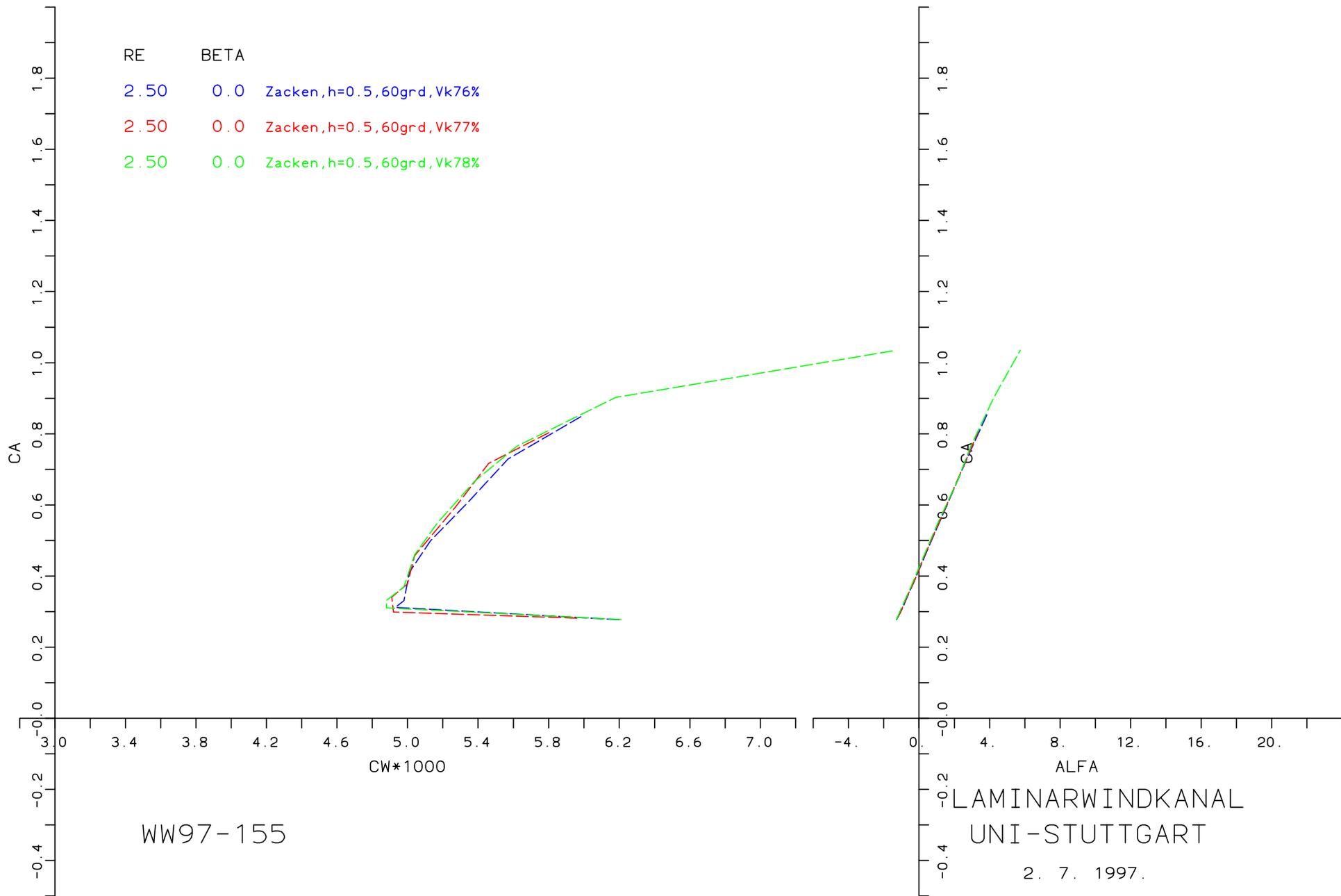


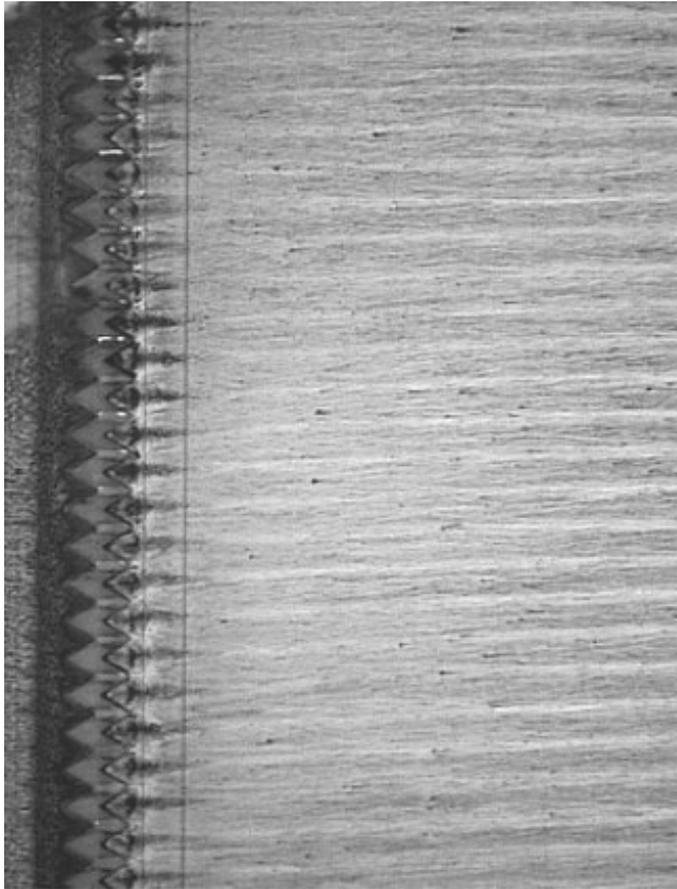




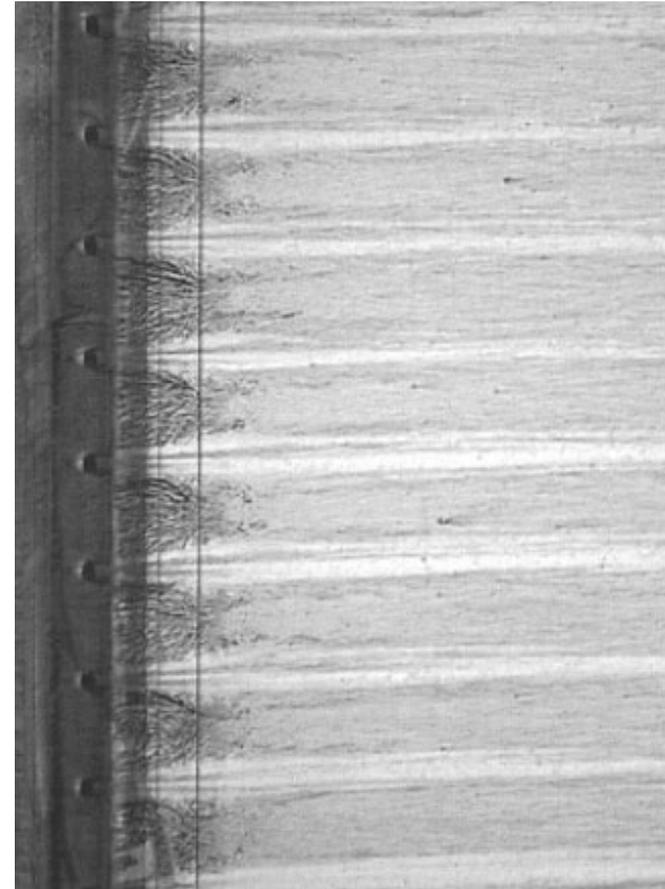






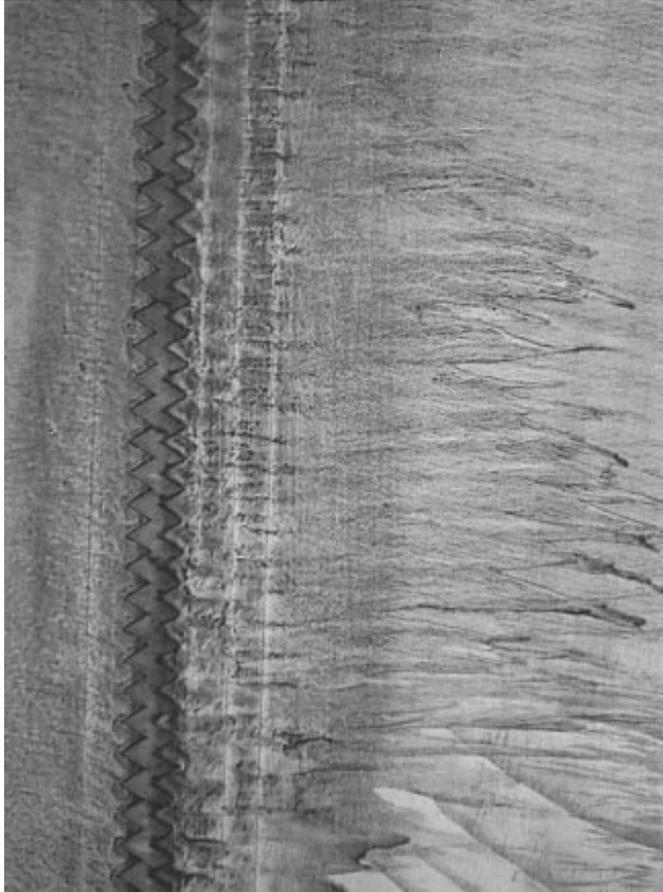


Zacken, $h=0.5\text{mm}$, 60grd , Vorderkante 77%

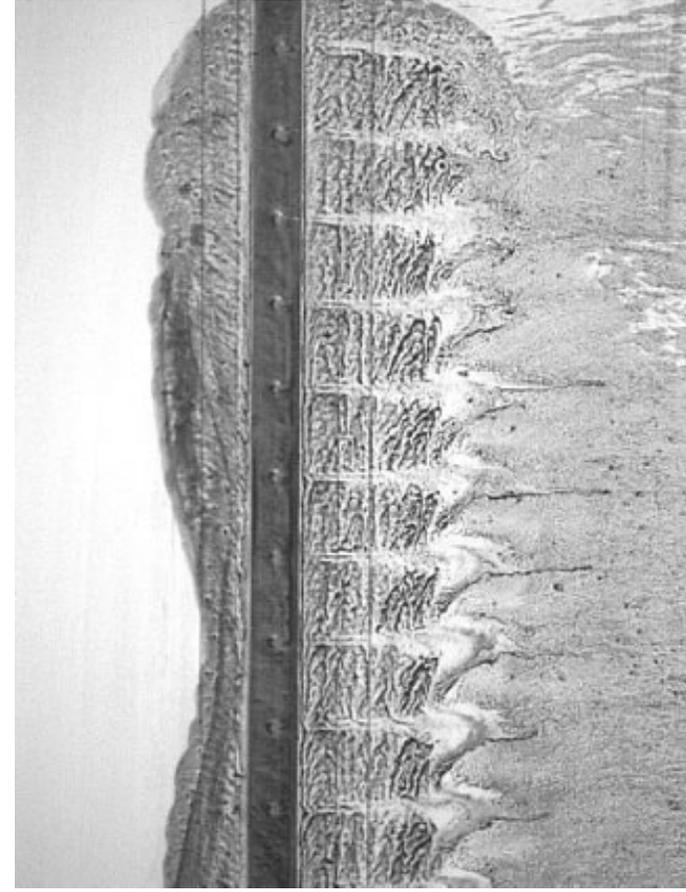


Noppen, $h=0.9\text{mm}$, 16mmAbst. , Mitte 77%

WW97-155, $Re=2.5*10^6$, $\alpha=0^\circ$



Zacken, $h=0.5\text{mm}$, 60grd , Vorderkante 76%



Noppen, $h=0.9\text{mm}$, 16mmAbst. , Mitte77%

WW97-155, $Re=1*10^6$, $\alpha=4^\circ$