# **Roadmap to Lecture 6**

# Appendix 2

1. Incomplete list of turbulence models and references

- The following is an incomplete list of RANS/URANS/RSM turbulence models.
- Have in mind that some of the models have many variants.
  - Cebeci-Smith.
  - Baldwin-Lomax.
  - Johnson-King.
  - Bradshaw-Ferris-Atwell.
  - L-VEL.
  - Prandtl mixing length.
  - Van-driest mixing length.
  - Prandtl one equation.
  - Nee-Kovasznay.
  - Baldwin-Barth.
  - Spalart-Allmaras.
  - Secundov Nut-92.
  - Wolfshtein.

- The following is an incomplete list of RANS/URANS/RSM turbulence models.
- Have in mind that some of the models have many variants.
  - Norris-Reynolds.
  - Wray-Agarwal.
  - Rotta k-kl.
  - Standard K-Epsilon.
  - RNG K-Epsilon.
  - Realizable K-Epsilon.
  - Myong-Kasagi K-Epsilon.
  - Launder-Sharme K-Epsilon.
  - Lam-Bremhorst K-Epsilon.
  - Jones-Launder K-Epsilon.
  - Chien K-Epsilon.
  - Lien-Leschziner K-Epsilon.

- The following is an incomplete list of RANS/URANS/RSM turbulence models.
- Have in mind that some of the models have many variants.
  - Speziale K-Epsilon.
  - Rubinstein-Barton.
  - Gatski-Speziale.
  - Lien-Chien-Leschziner.
  - Apsley-Leschziner.
  - Saffman-Spalding k-Omega.
  - Kolmogorov 1942 K-Omega.
  - Wilcox 1988 K-Omega.
  - Wilcox 1998 K-Omega.
  - Wilcox 2006 K-Omega.
  - Menter 2003 K-Omega SST.
  - Langtry-Menter K-Omega.

- The following is an incomplete list of RANS/URANS/RSM turbulence models.
- Have in mind that some of the models have many variants.
  - K-e-Rt.
  - K-e-zeta-F.
  - Q-Zeta.
  - Pope EARSM.
  - Walin-Johansson EARSM.
  - Mishra-Girimaji.
  - Wilcox RSM.
  - LRR RSM.
  - SSG RSM.
  - GLVY RSM.
  - Craft cubic model.

- The following is an incomplete list of RANS/URANS/RSM turbulence models.
- Have in mind that some of the models have many variants.
  - Gibson-Launder.
  - Craft-Launder.
  - Shima.
  - V2-f
  - Gamma-Re-Theta.
  - LCTM.
  - K-Kl-Omega.
  - Transition SST.
  - GEKO.