

CIVE 716 EROSION AND SEDIMENTATION

Pierre Y. Julien, *Spring 2023*

Assignment #2 Chapters 4 and 5 due March 2

Problem # 1 (20%)

Solve Problem 4.2 p. 81.

Problem # 2 (40%)

Solve Problem 4.4 p. 82 for the quarter sphere. Integrate pressure and calculate the forces in all three directions.

Problem # 3 (20%)

Solve Exercise 5.6 p. 108.

Problem # 4 (20%)

Solve Problem 5.5. Also plot Eq. 5.18 for high Reynolds numbers on the graph below based on recent experiments (from Langaak and Basson, ASCE-JHE, 2015).

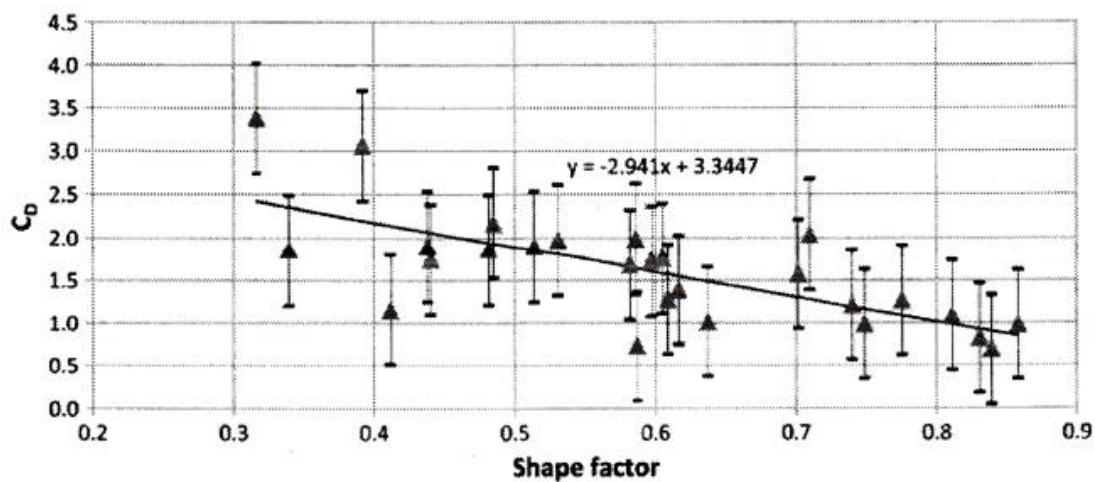


Fig. 5. Shape factor versus drag coefficient
