Cross-sectional Views of 90º/90º Pipe Without/With a Weld

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Outlines

- Define the Locations of the Profiles
- Contours of Turbulence Intensity
  - Pipe without A Weld (#Grid = 4.6×10^6): Figs.(a)
  - Pipe with A Weld (#Grid = 5×10^6): Figs.(b)

Define the Locations of the Profiles

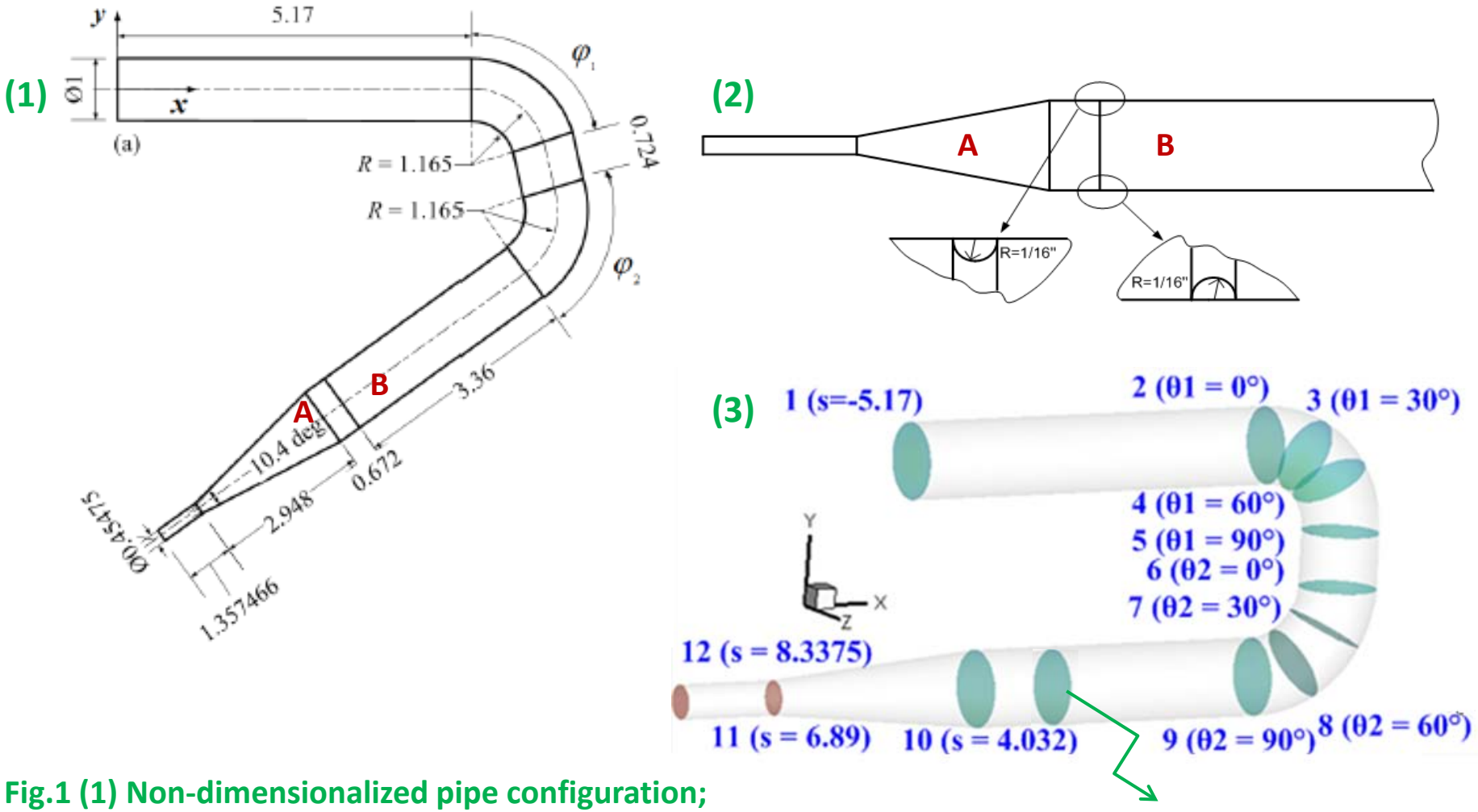
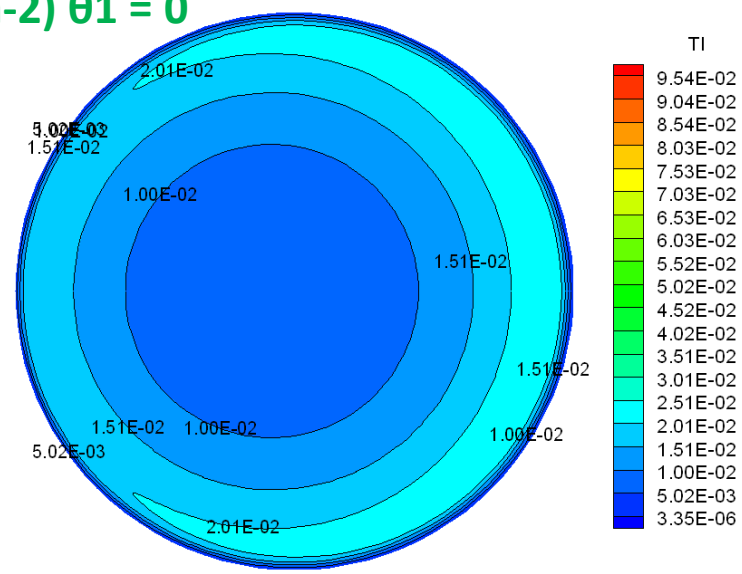


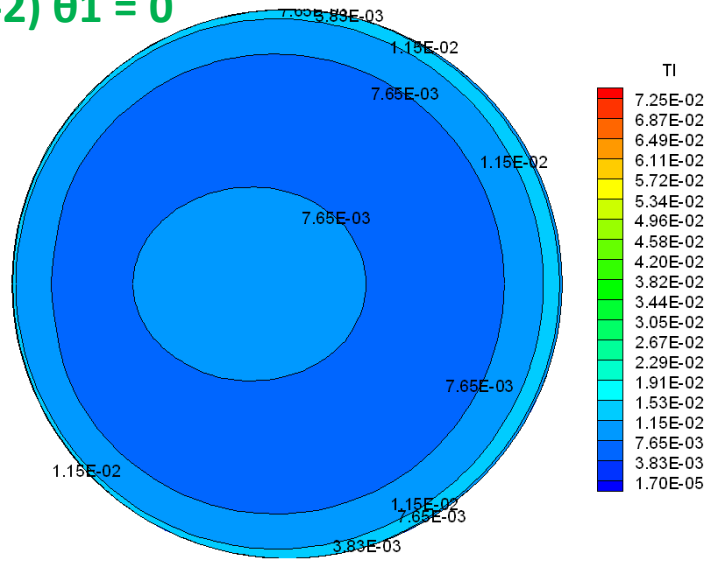
Fig.1 (1) Non-dimensionalized pipe configuration;
(2) Pseudo coordinates (*s*,θ) along the 90/90 curved pipe;
(3) Locations of the most interested weld.

Contour of Turbulence Intensity

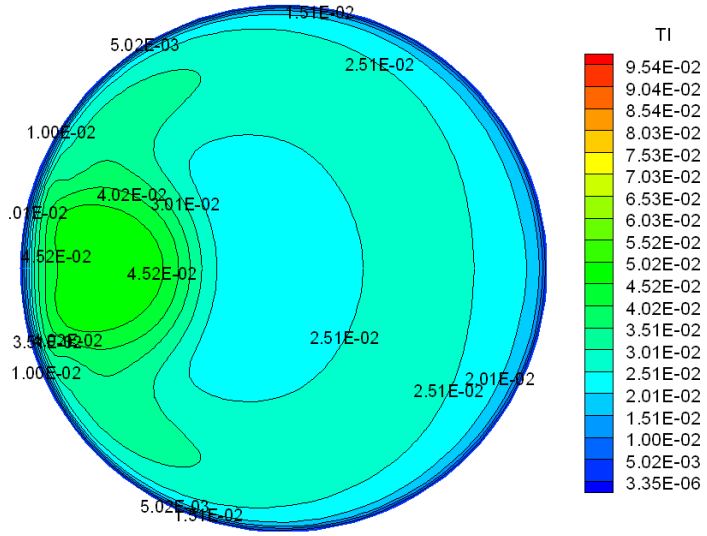
(a-2) θ1 = 0



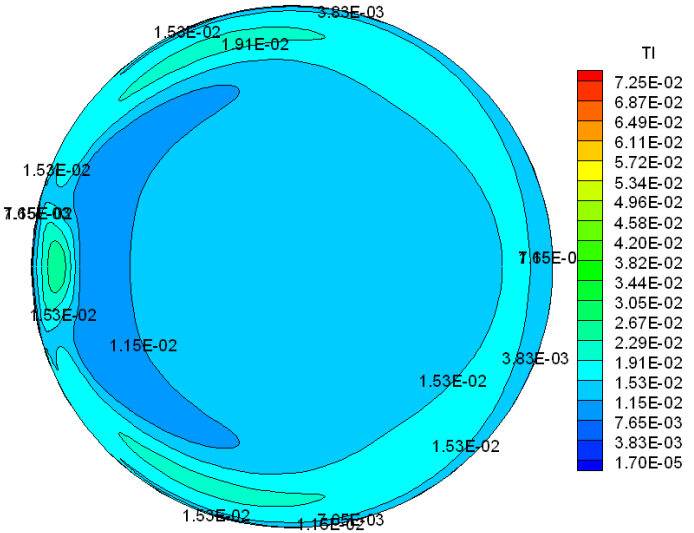
(b-2) θ1 = 0



(a-3) θ1 = 90

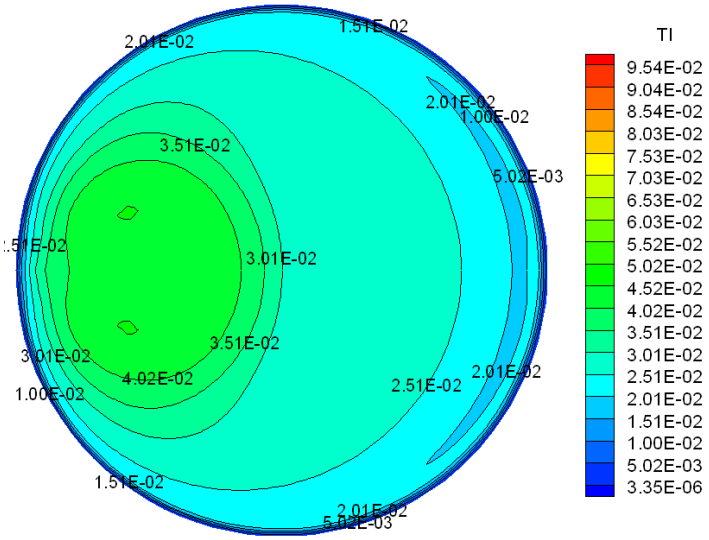


(b-3) θ1 = 90

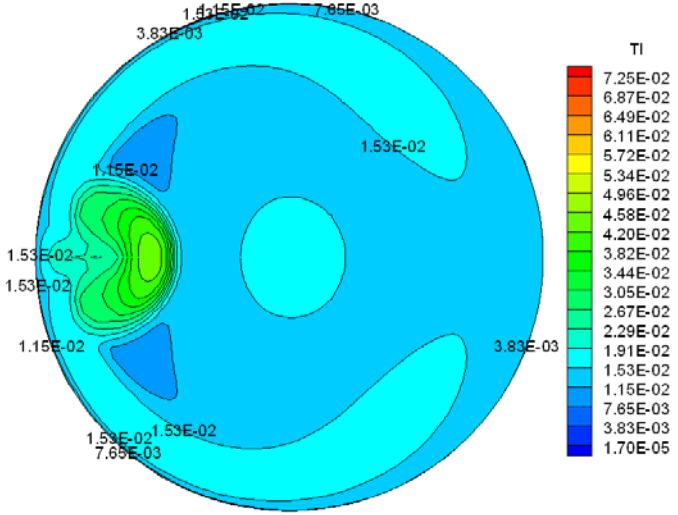


Contour of Turbulence Intensity

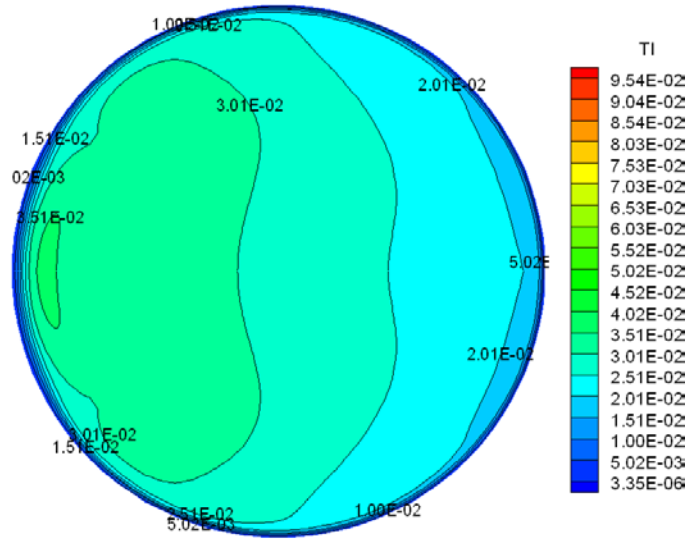
(a-4) θ2 = 0



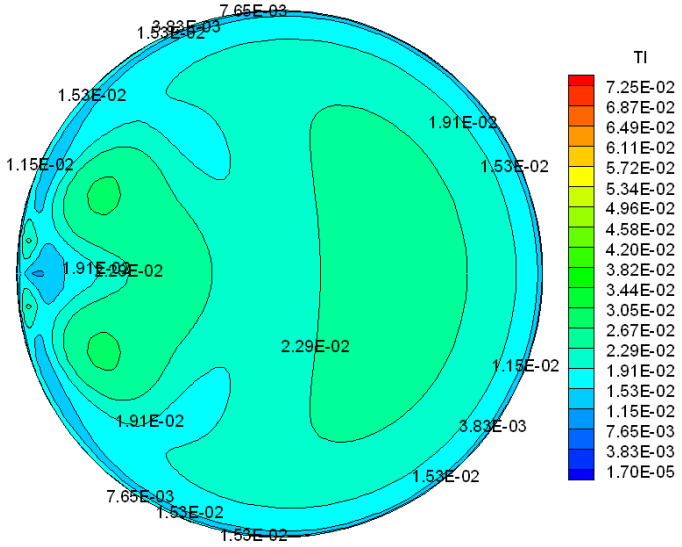
(b-4) θ2 = 0



(a-5) θ2 = 90

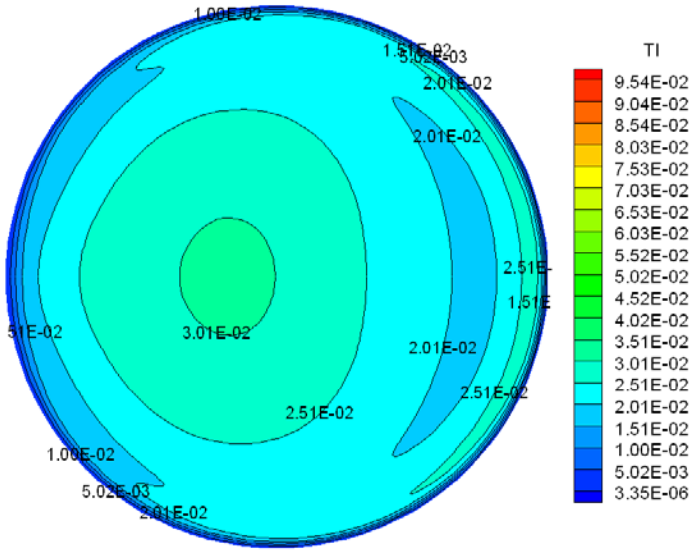


(b-5) θ2 = 90

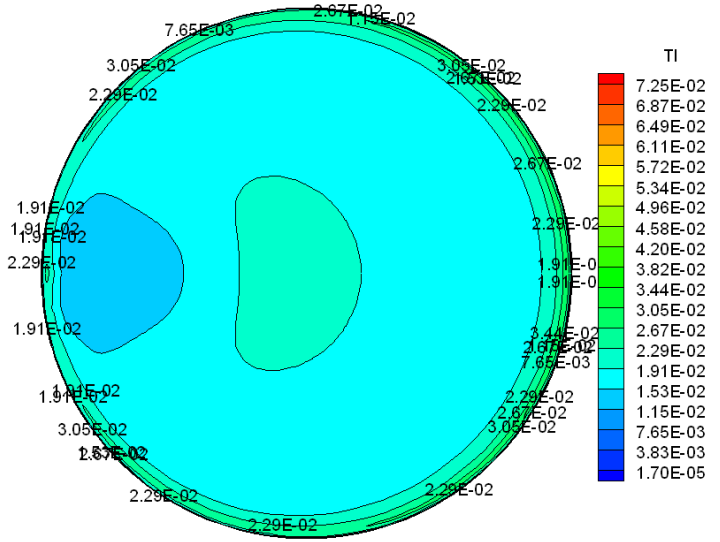


Contour of Turbulence Intensity

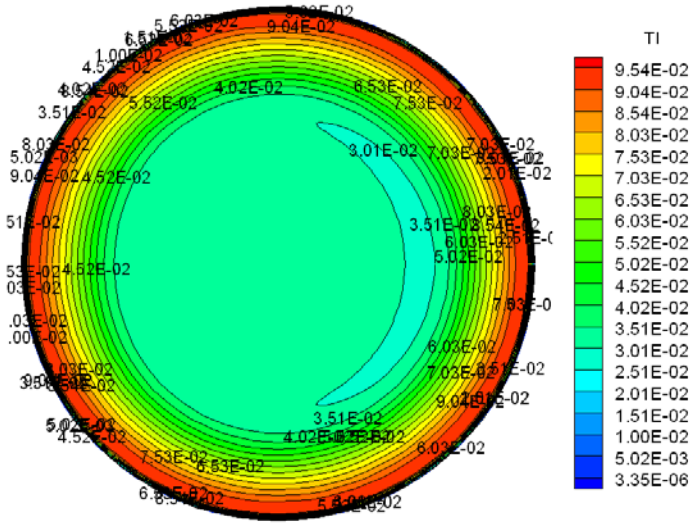
(a-6) s = 3.36



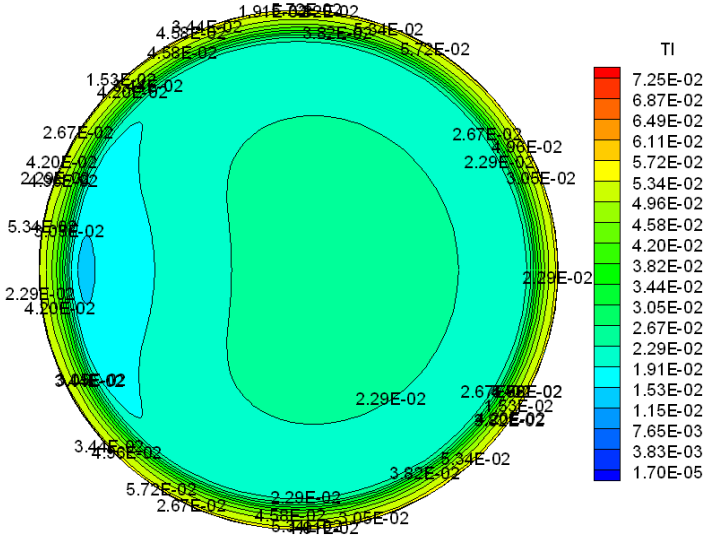
(b-6) s = 3.36



(a-7) s = 8.3375



(b-7) s= 8.3375



Contour of Turbulence Intensity

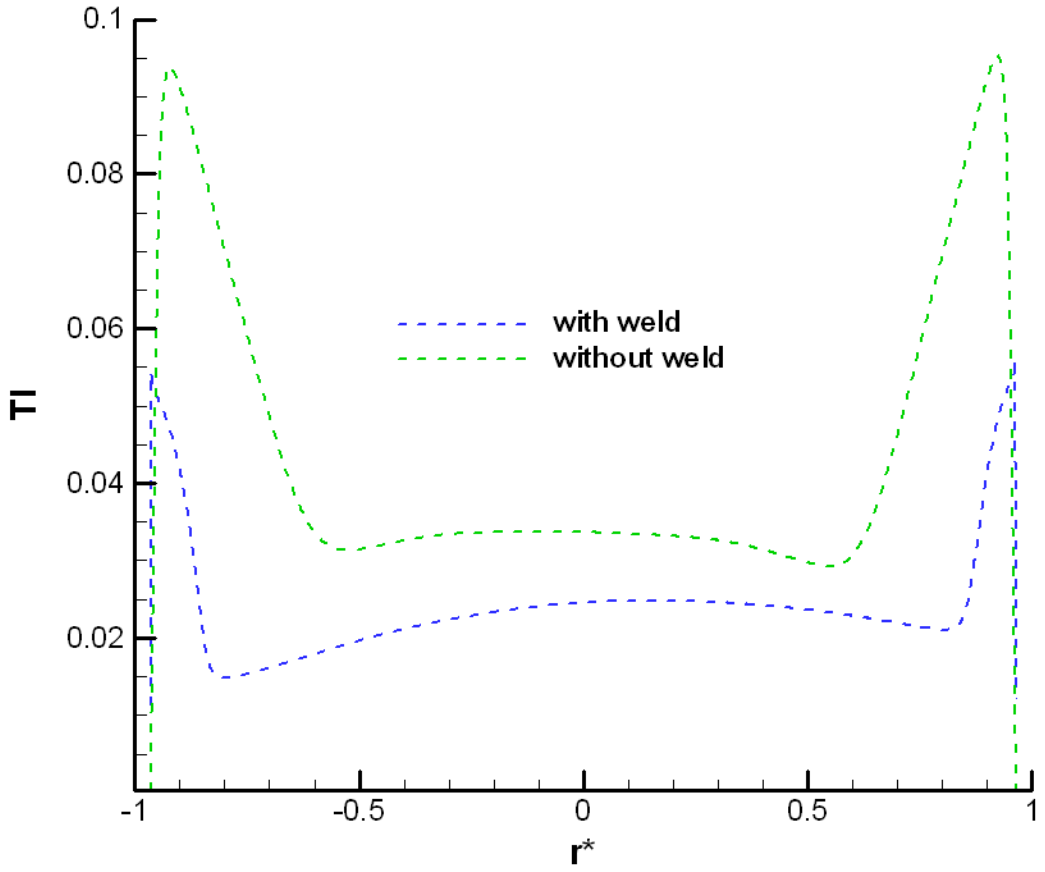


Fig.2 Turbulence intensity line plot along the centerline at the pipe exit