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Effect of Inlet Total Pressure Non-uniform Distribution on
Aerodynamic Performance and Flow Field of Turbine

Shi Wentong , Yi Weilin , Ji Lucheng

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Highlights:

- Non-uniform inlet total pressure has a notable impact on turbine efficiency.
- When the endwall total pressure is higher, the turbine efficiency decline sharply.
- The inlet total pressure profile affect the downstream flow pattern directly.
- The fluid near the pressure side is easily affected by the inlet pressure gradient.
- Non-uniform pressure condition has a similar impact on NGV and stage.

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