Aerodynamic Investigation of Leading Edge Contouring and External Cooling on a Transonic Turbine Vane

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ERRATA in Doctoral Thesis

Page 15, line 25: The word “constrains” is changed to “constraints”.

Page 20, line 5: The sentence is changed from “They reasoned that the coolant injection increases the base pressure level and thereby a reduction of losses is achieved.” to “Sieverding et al. (1996) reasoned from high Mach investigations that a reduction of losses is achieved via cooling due to reduction of the intensity of shock and Kapteijn et al. (1996) reported that cooling ejection on the pressure side close to the trailing edge have higher losses than ejection through the (thicker) trailing edge”.

Page 22, line 2: The sentence is ended with “.".

Page 25, line 20: The word is changed from “axis-symmetric” to “axi-symmetric”.

Page 44, line 1: The sentence is changed from “there were some local variations for 25%, 50% and 75% span” to “there were some local variations only for 25% span”.

Page 50, line 3: The sentence is changed from “… in the zone below the 20% span” to “… in the zone below the 5% span”.

Page 57, line 4: The word “phenomena” is changed to “phenomenon”.

Page 68, Figure 5-8: The last two legends of the figure are changed to TE (Y₄ = 1.15%) and TE (Y₅ = 1.46%).

Page 75, line 28: The sentence is changed from “Table 5-3 represents Figure 5-20– Figure 5-22 in graphical manner…” to “Figure 5-20– Figure 5-22 represent Table 5-3 in graphical manner….”.

Page 75, line 34: The sentence is changed from “Additionally, the SH cooling is beneficial for the exit angle point of view” to “Additionally, the SH cooling is beneficial for the exit angle point of view for a high mass-flux ratio”.

Page 93, line 8: The sentence is changed from “The tip secondary loss is slightly higher than the hub secondary loss due to the axis-symmetric tip endwall contouring” to “The tip secondary loss is slightly lower than the hub secondary loss due to the axi-symmetric tip endwall contouring”.