

Figure 10 is a line graph showing the normalized velocity profile  $u^+$  versus  $y^+$  for different numbers of nodes (20, 40, 80) and experimental data. The graph displays two sets of curves: an upper surface (black dots) and a lower surface (black stars). The curves for 20, 40, and 80 nodes are shown in blue, cyan, and red, respectively. The curve for 10 nodes is shown in green. The experimental data points are shown as black dots for the upper surface and black stars for the lower surface. The velocity profile is parabolic, with the maximum velocity occurring at  $y^+ = 0$ . The 80 Nodes curve (red) shows the highest peak velocity, followed by 40 Nodes (cyan) and 20 Nodes (blue). The 10 Nodes curve (green) shows a lower peak velocity. The experimental data points are closely clustered around the 20 and 40 Nodes curves.

\*source-free formulation