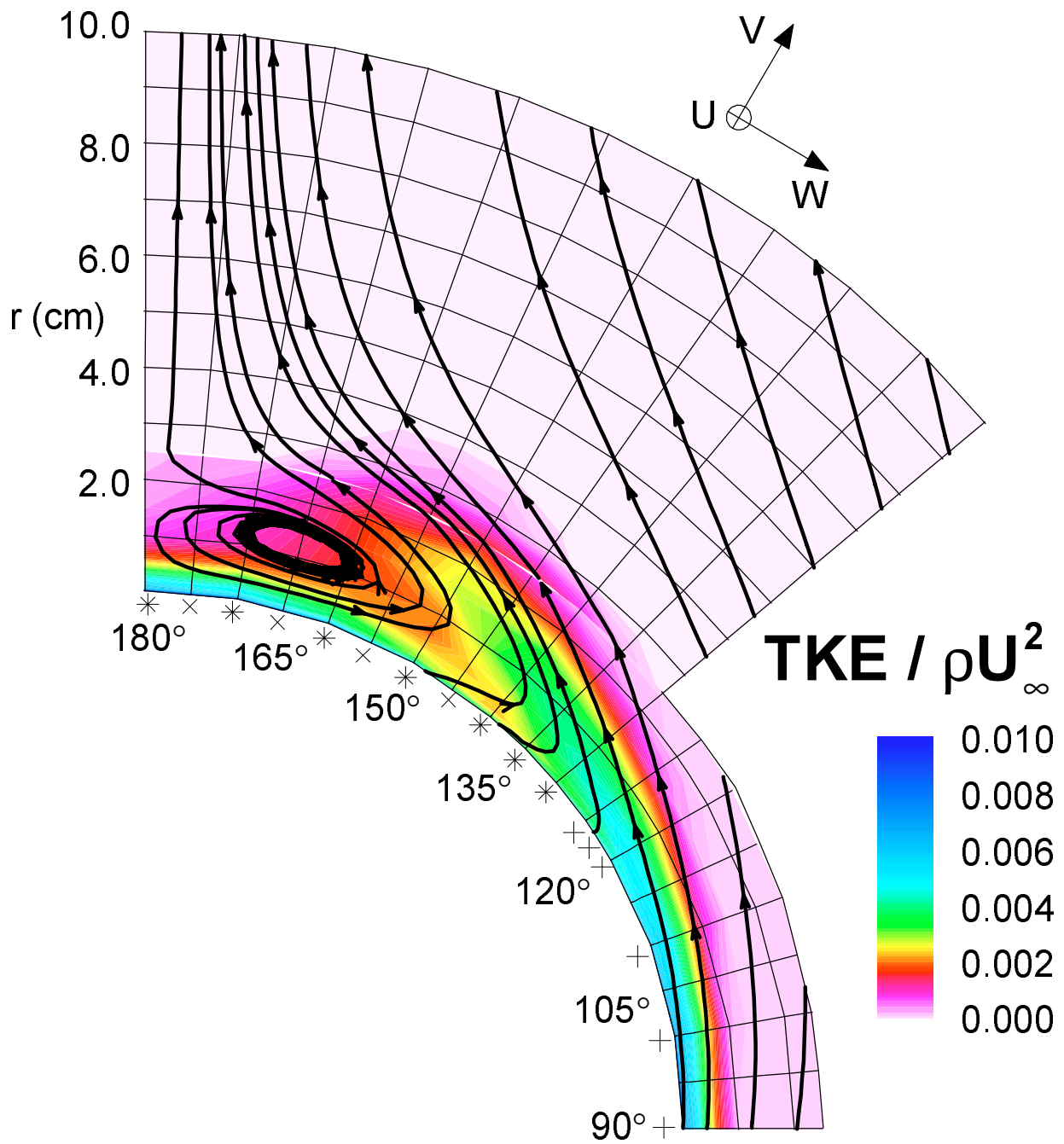
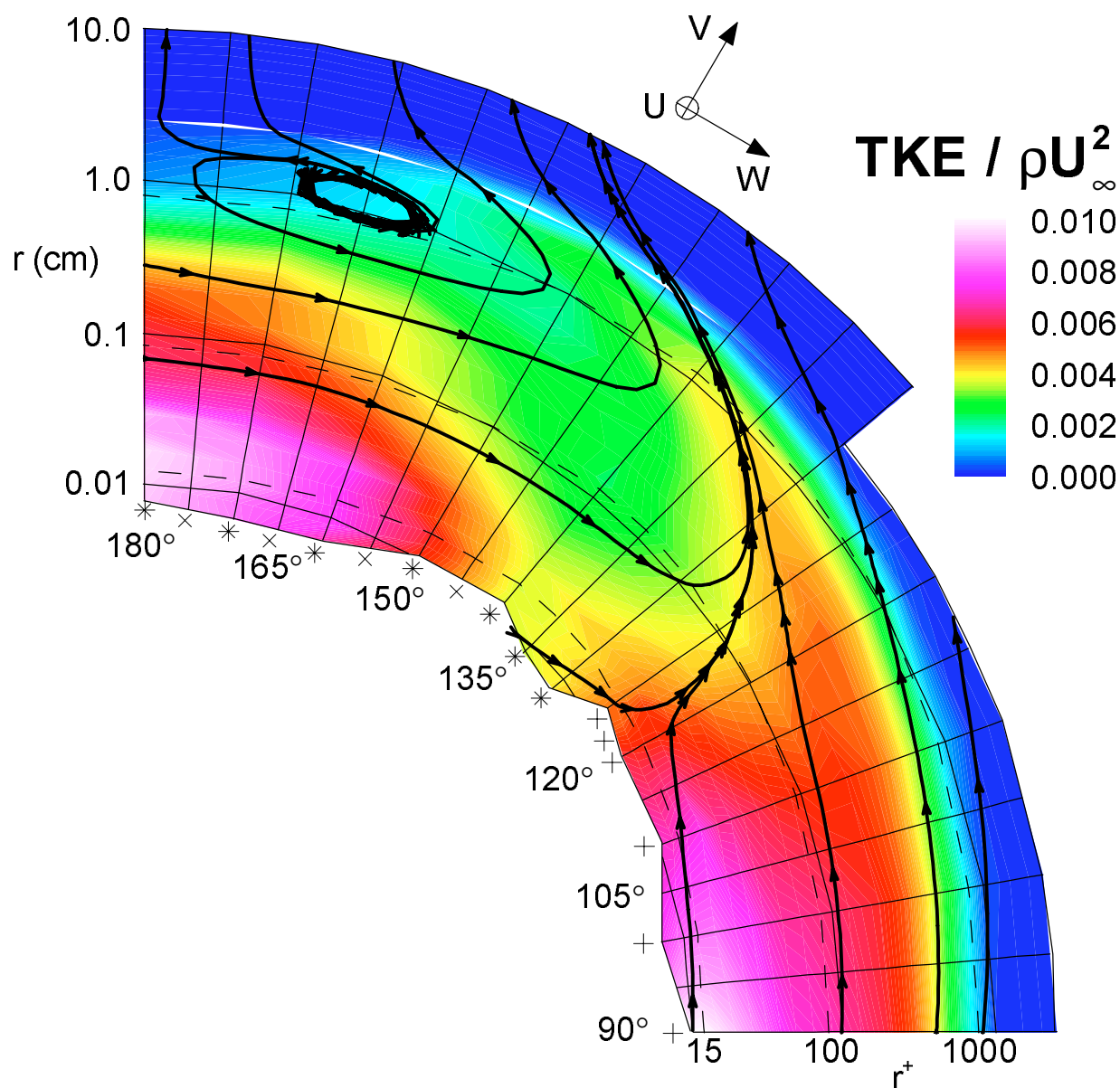


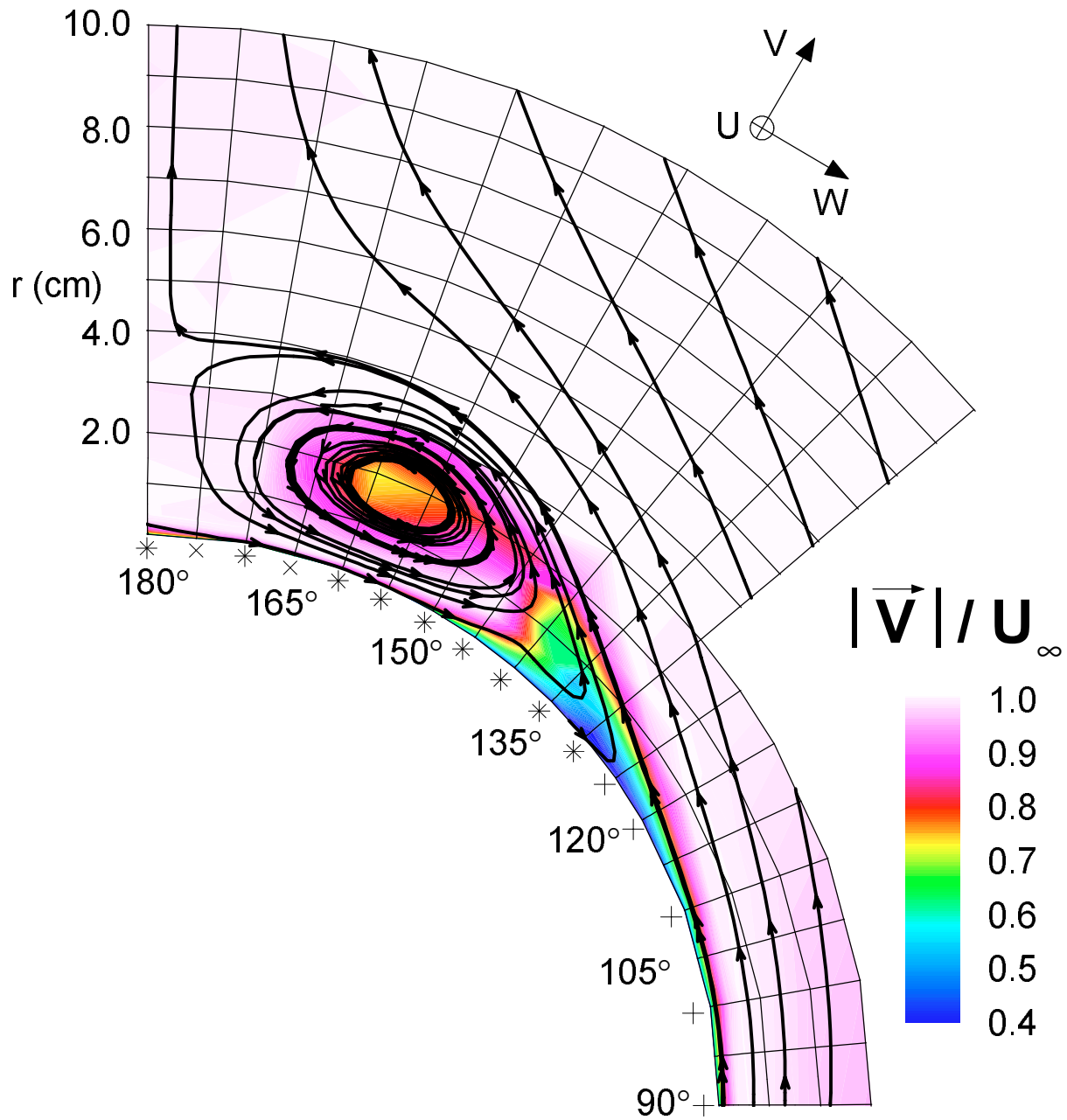
**Figure 97.** Secondary streamlines with contour levels of the mean velocity magnitude,  $\alpha = 10^\circ$ ,  $x/L = 0.772$ . The pluses (+) along the  $\phi$ -axis denote the  $\phi$  locations at which radial profiles of simultaneous velocity (LDV) and surface pressure measurements were carried out. The Xs (x) along the  $\phi$ -axis denote the  $\phi$  locations at which radial profiles of velocity were carried out using a 4-hot-wire probe. The asterisks (\*) denote  $\phi$ -locations at which velocity profiles were carried using both LDV and the 4-hot-wire probe. The radial coordinate ( $r$ ) is plotted on a logarithmic scale and the dashed lines show lines of constant  $r^+$ . The irregular shape of the inner boundary is defined by the measurement locations nearest the model surface.



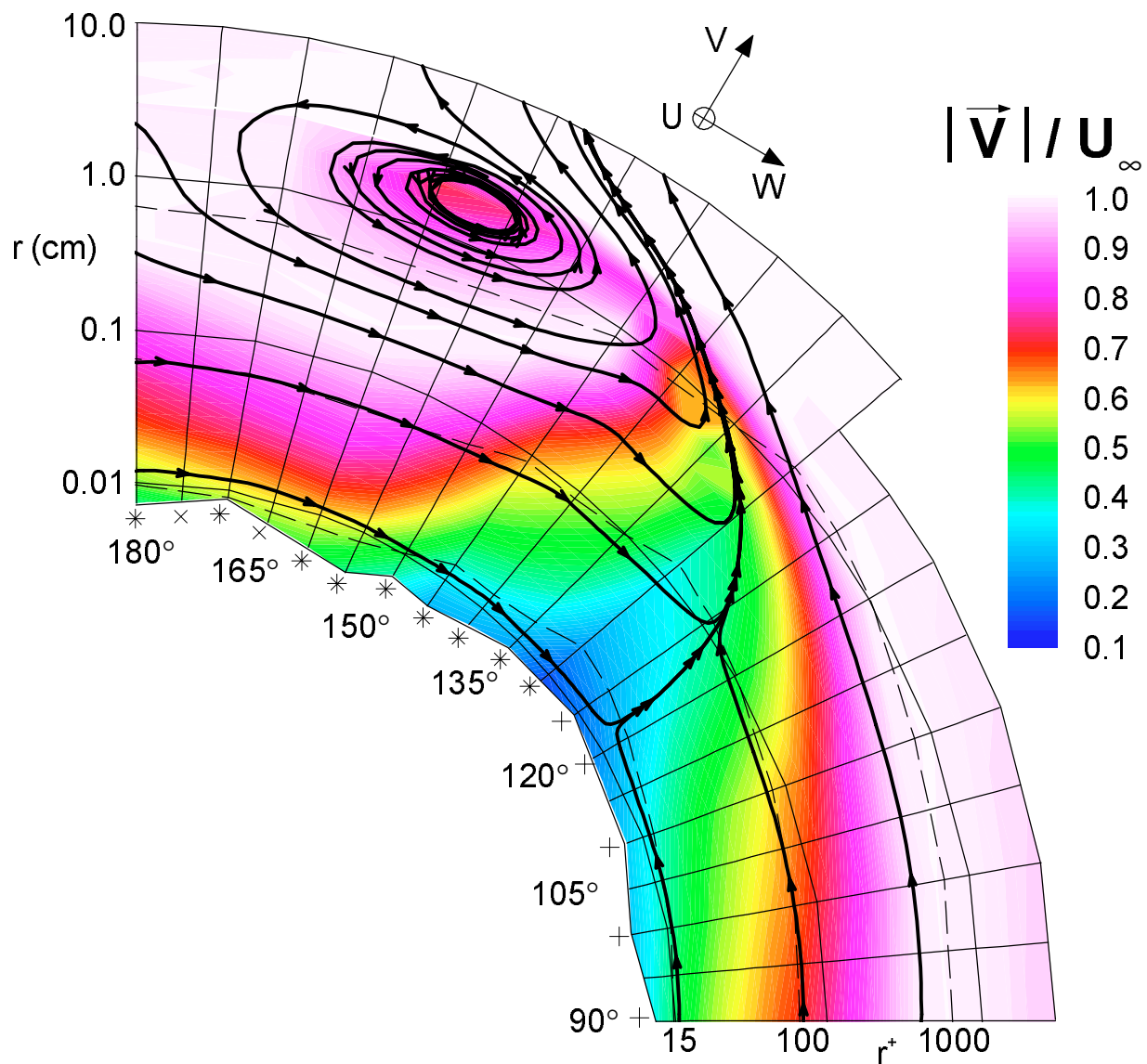
**Figure 98.** Secondary streamlines with contour levels of  $TKE$ ,  $\alpha = 10^\circ$ ,  $x/L = 0.772$ . The pluses (+) along the  $\phi$ -axis denote the  $\phi$  locations at which radial profiles of simultaneous velocity (LDV) and surface pressure measurements were carried out. The Xs (x) along the  $\phi$ -axis denote the  $\phi$  locations at which radial profiles of velocity were carried out using a 4-hot-wire probe. The asterisks (\*) denote  $\phi$ -locations at which velocity profiles were carried using both LDV and the 4-hot-wire probe.



**Figure 99.** Secondary streamlines with contour levels of  $TKE$ ,  $\alpha = 10^\circ$ ,  $x/L = 0.772$ . The pluses (+) along the  $\phi$ -axis denote the  $\phi$  locations at which radial profiles of simultaneous velocity (LDV) and surface pressure measurements were carried out. The Xs (x) along the  $\phi$ -axis denote the  $\phi$  locations at which radial profiles of velocity were carried out using a 4-hot-wire probe. The asterisks (\*) denote  $\phi$ -locations at which velocity profiles were carried using both LDV and the 4-hot-wire probe. The radial coordinate ( $r$ ) is plotted on a logarithmic scale and the dashed lines show lines of constant  $r^+$ . The irregular shape of the inner boundary is defined by the measurement locations nearest the model surface.



**Figure 100.** Secondary streamlines with contour levels of mean velocity magnitude,  $\alpha = 20^\circ$ ,  $x/L = 0.600$ . The pluses (+) along the  $\phi$ -axis denote the  $\phi$  locations at which radial profiles of simultaneous velocity (LDV) and surface pressure measurements were carried out. The Xs (x) along the  $\phi$ -axis denote the  $\phi$  locations at which radial profiles of velocity were carried out using a 4-hot-wire probe. The asterisks (\*) denote  $\phi$ -locations at which velocity profiles were carried out using both LDV and the 4-hot-wire probe.



**Figure 101.** Secondary streamlines with contour levels of the mean velocity magnitude,  $\alpha = 20^\circ$ ,  $x/L = 0.600$ . The pluses (+) along the  $\phi$ -axis denote the  $\phi$  locations at which radial profiles of simultaneous velocity (LDV) and surface pressure measurements were carried out. The Xs (x) along the  $\phi$ -axis denote the  $\phi$  locations at which radial profiles of velocity were carried out using a 4-hot-wire probe. The asterisks (\*) denote  $\phi$ -locations at which velocity profiles were carried using both LDV and the 4-hot-wire probe. The radial coordinate ( $r$ ) is plotted on a logarithmic scale and the dashed lines show lines of constant  $r^+$ . The irregular shape of the inner boundary is defined by the measurement locations nearest the model surface.