

```

\begin{tikzpicture}
  \begin{axis}[
    axis lines=middle,
    xmin=-3, xmax=3,
    ymin=-pi/2, ymax=pi/2,
    xtick={-3,-2,-1,0,1,2,3},
    ytick={-1.57, -0.785, 0, 0.785, 1.57},
    yticklabels={\$-\frac{\pi}{2}\$,
    \$-\frac{\pi}{4}\$, \$0\$,
    \$\frac{\pi}{4}\$, \$\frac{\pi}{2}\$},
    xlabel style={below right},
    ylabel style={above left},
  ]
  \addplot[domain=-3:3,smooth,red,thick] {rad(atan(x))}
  \node[right] at (axis cs: 2,0.7) {\$C_f\$};
\end{axis}
\end{tikzpicture}

```

