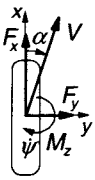
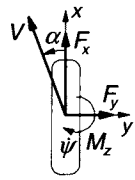
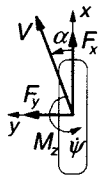
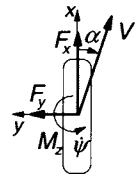
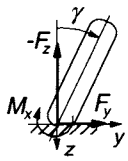
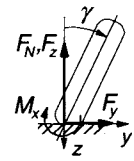
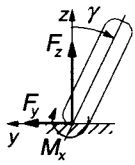
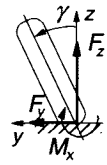
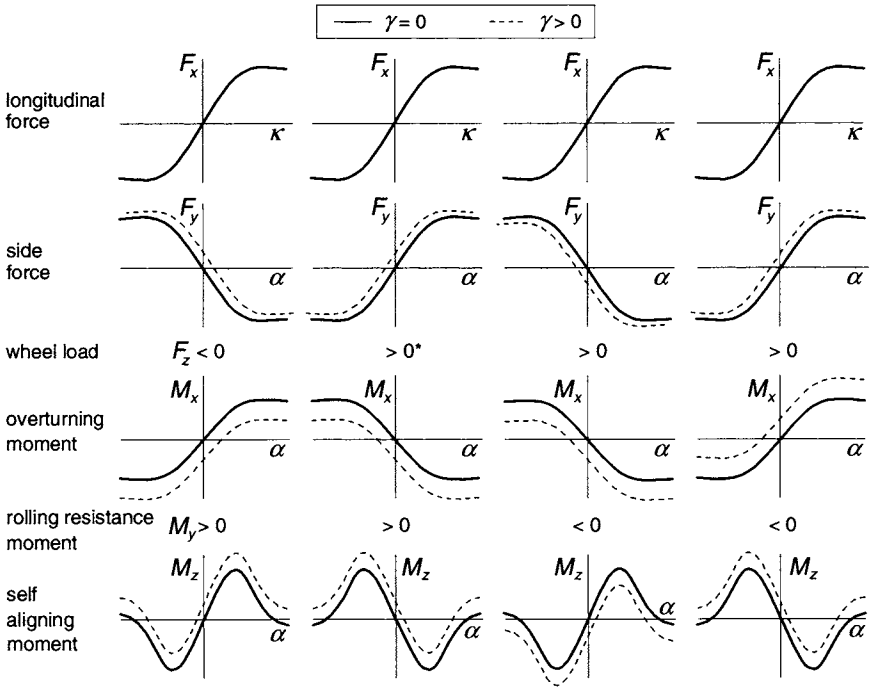
Appendix 1

Sign Conventions for Force and Moment and Wheel Slip

($V_x > 0$)	SAE	adapted SAE (Pacejka, this book)	ISO	adapted ISO (Besselink 2000)
side angle (top view)				
inclination/ camber angle (rear view)				
side slip	$\tan\alpha = \frac{V_{sy}}{V_x}$	$\tan\alpha = -\frac{V_{sy}}{V_x}$	$\tan\alpha = \frac{V_{sy}}{V_x}$	$\tan\alpha = -\frac{V_{sy}}{V_x}$
longitudinal slip	$\kappa = -\frac{V_{sx}}{V_x}$	$\kappa = -\frac{V_{sx}}{V_x}$	$\kappa = -\frac{V_{sx}}{V_x}$	$\kappa = -\frac{V_{sx}}{V_x}$
turn slip	*not defined*	$\varphi = -\frac{\dot{\psi}}{V_x}$	*not defined*	$\varphi = -\frac{\dot{\psi}}{V_x}$



*except for Chapter 9 where $F_N = -F_z > 0$