Notation Conventions

$\mathcal{M}, \mathcal{N}$  manifolds
$x, y$ points on a manifold
$\xi, \eta, \zeta, \chi$ tangent vectors or vector fields
$\xi_x, \eta_x, \zeta_x, \chi_x$ tangent vectors at $x$
$\varphi, \psi$ coordinate charts
$A, B$ square matrices
$W, X, Y, Z$ matrices
$\mathcal{W}, \mathcal{X}, \mathcal{Y}, \mathcal{Z}$ linear subspaces

Conventions related to the definition of functions are stated in Section A.3.