
The notes for sections III.3-4 made me realize just how much notation we have covered in this course. \mathscr{C} , $df_{\mathbf{a}}$, and $D_2G(\mathbf{a},\mathbf{b})^{-1}$ from this reading, as well as past items (such as $\langle \cdots \rangle$ for inner product) add up to be quite the handful. Perhaps it would have been wise to build up a key throughout the course.

From the definitions and theorems regarding smooth k-manifolds, I have difficulty conceptualizing the difference between k-manifolds and smooth k-manifolds.