

1. Carothers 10.7
2. Carothers 10.15
3. Carothers 10.18
4. Carothers 10.19
5. Carothers 10.20
6. Carothers 10.25
7. Carothers 10.26
8. Carothers 10.27
9. Carothers 10.34
10. Let X be compact and let \mathcal{X} be the set of non-empty closed subsets of X . Let H be the Hausdorff metric on \mathcal{X} introduced previously. Suppose (F_n) is a sequence of nested closed sets, so $F_1 \supseteq F_2 \supseteq \dots$. Show this is a convergent sequence, and compute its limit.