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# Perimeter Estimates for Reachable Sets of Control Systems

The reachable set in time $T > 0$, $\mathcal{R}(T)$, is here investigated for the symmetric control system $\dot{x}(t) = f(x(t))u(t)$, $u(t) \in \overline{B}$. It turns out that, for $f(x)$ smooth and nondegenerate, $\mathcal{R}(T)$ has finite perimeter, and a sharp estimate for the time-dependence of the perimeter and volume of such a set can be obtained.

**Keywords**: Control theory, attainable sets, interior ball condition, sets of finite perimeter.