



Jesús Araujo (araujoj@unican.es) Departamento de Matemáticas, Estadística y Computación, Facultad de Ciencias, Universidad de Cantabria, E-39071 Santander, Spain, *Isometric shifts between spaces of continuous functions.*

ABSTRACT. Let X be a compact Hausdorff space. A linear operator $T : C(X) \rightarrow C(X)$ is said to be an (isometric) shift if the following three conditions are satisfied:

1. T is an isometry,
2. The codimension of $\text{Im } T$ in $C(X)$ is 1,
3. $\bigcap_{n=1}^{\infty} \text{Im } T^n = \{\mathbf{0}\}$.

We give two independent methods for obtaining examples of separable spaces admitting different kinds of shifts, and compare them with known results. In particular we study the cases of examples containing different connected components. We also study the case of sequences adjoined to compact manifolds and the Cantor set. Finally we give an answer to the following problem, proposed by Gutek *et al.* (J. Funct. Anal. **101** (1991), 97-119) : If $C(X)$ admits a shift, must X be separable?