Dale Alspach*, Department of Mathematics, Oklahoma State University, 401 Mathematical Sciences, Stillwater, OK 74078, and Eloi M. Galego. Geometry of the Banach spaces $C(\beta \mathbb{N} \times K, l_p)$ for compact metric spaces K.

We provide the complete isomorphic classification of the spaces $C(\beta \mathbb{N} \times K, l_p)$ of all continuous l_p -valued functions, $1 \leq p < \infty$, defined on the topological product of the Stone-Cech compactification of the natural numbers \mathbb{N} and an arbitrary infinite compact metric space K. The results can be reformulated as classifying spaces of compact operators since these spaces are isomorphic to spaces of compact operators from l_1 into $C(K, l_p)$. (Received September 08, 2010)