Year: 1999 | **Vol.: 54** | **Fasc.: 1-2**

Title: A new kind of infinite dimensional spaces

Author(s): F. G. Arenas and M. L. Puertas

In this paper we introduce a kind of infinite dimensional spaces, called finite dimensional separated, related to a dimension defined by G. Steinke in [12].

This new kind of infinite dimensional spaces satisfies some properties such as the subspace theorem, a product theorem and an addition theorem. Likewise, we shall obtain characterizations of this property for regular spaces, compactifications of the space that preserve finite dimensional separateness and relations with some transfinite dimensions and another kind of infinite dimensionality (w.i.d. spaces, C-spaces). We also define a related property which has a local theorem.

Address:
F. G. Arenas
Area of Geometry and Topology
University of Almería
04071 Almería
Spain
E-mail: farenas@ualm.es

Address:
M. L. Puertas
Area of Geometry and Topology
University of Almería
04071 Almería
Spain
E-mail: mpuertas@ualm.es