

Normal systems over ANR's, rigid embeddings and nonseparable absorbing sets

Piotr Niemiec

(Submitted on 7 Jul 2011)

Most of results of Bestvina and Mogilski [Characterizing certain incomplete infinite-dimensional absolute retracts], Michigan Math. J. **33** (1986), 291--313] on strong Z -sets in ANR's and absorbing sets is generalized to nonseparable case. It is shown that if an ANR X is locally homotopy dense embeddable in infinite-dimensional Hilbert manifolds and $w(U) = w(X)$ (where w is the topological weight) for each open nonempty subset U of X , then X itself is homotopy dense embeddable in a Hilbert manifold. It is also demonstrated that whenever X is an AR, its weak product $W(X, *) = \{(x_n)_{n=1}^{\infty} \in X^{\omega} : x_n = * \text{ for almost all } n\}$ is homeomorphic to a pre-Hilbert space E with $E \cong \Sigma E$. An intrinsic characterization of manifolds modelled on such pre-Hilbert spaces is given.

Comments: 26 pages
Subjects: **General Topology (math.GN)**
MSC classes: 54C55, 57N20
Journal reference: Acta Math. Sin. (Engl. Ser.) 28 (2012), 1531-1552
Cite as: **arXiv:1107.1502 [math.GN]**
(or **arXiv:1107.1502v1 [math.GN]** for this version)

Submission history

From: Piotr Niemiec [view email]
[v1] Thu, 7 Jul 2011 20:02:43 GMT (45kb)

Which authors of this paper are endorsers?

Download:

- PDF
- PostScript
- Other formats

Current browse context:

math.GN

< prev | next >

new | recent | 1107

Change to browse by:

math

References & Citations

- NASA ADS

Bookmark (what is this?)

