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Spiral cones

Abstract. In [1] we presented a construction of Peano continua $SC(X)$ from Peano continua X using the topologists sine curve. Dušan Repovš proposed a similar construction $Sp(X)$ using the spiral converging to a disk. For the former space $SC(X)$, $\pi_1(SC(X))$ is trivial for any path-connected space X and $H_2(SC(X))$ is non-trivial, if X is not simply connected [2]. Here we show that neither $\pi_1(Sp(X))$ nor $H_2(Sp(X))$ is trivial, if $\pi_1(X)$ is non-trivial.

A part of this talk was presented at the 4-th Croatian Mathematical Congress in 2004.

REFERENCES

- [1] K. Eda, U. H. Karimov, and D. Repovš, *A new construction of simply connected noncontractible cell-like continua*, (submitted).
- [2] ———, *An example of a nonaspherical cell-like 2-dimensional continuum and some related constructions*, (submitted).