

**Correia Ramos, C.; Martins, Nuno; Pinto, Paulo R.**

**Interval maps from Cuntz-Krieger algebras.**  
*J. Math. Anal. Appl.* 374 (2011), no. 2, 347–354.

## Abstract

Markov interval maps  $f$  naturally produce transition aperiodic 0–1 matrices with extra features. We characterize the 0–1 matrices that can be realized as Markov transition matrices of interval maps, and parametrize the orbit representations (yielded in Correia Ramos et al. (2008) [2]) of the Cuntz–Krieger algebra OA obtained from interval maps with the same matrix  $A$ .

## References

1. O. Bratteli, P.E.T. Jorgensen, Iterated function systems and permutation representations of the Cuntz algebra, *Mem. Amer. Math. Soc.* 663 (1999) 1–89. [MR1469149 \(99k:46094a\)](#)
2. C. Correia Ramos, N. Martins, Paulo R. Pinto, J. Sousa Ramos, Cuntz–Krieger algebras representations from orbits of interval maps, *J. Math. Anal. Appl.* 341 (2008) 825–833. [MR2398251\(2010e:46067\)](#)
3. C. Correia Ramos, N. Martins, Paulo R. Pinto, Orbit Representations and Circle Maps, *Oper. Theory Adv. Appl.*, vol. 181, Birkhäuser Verlag, Basel, 2008, pp. 417–427. [MR2681900](#)
4. J. Cuntz, W. Krieger, A class of  $C^*$ -algebras and topological Markov chains, *Invent. Math.* 56 (1980) 251–268. [MR0561974 \(82f:46073a\)](#)
5. K. Falconer, Techniques in Fractal Geometry, John Wiley and Sons Ltd., 1997. [MR1449135 \(99f:28013\)](#)
6. J.P. Lampreia, J. Sousa Ramos, Trimodal maps, *Internat. J. Bifur. Chaos Appl. Sci. Engrg.* 3 (1993) 1607–1617. [MR1263584 \(94m:58070\)](#)
7. J.P. Lampreia, J. Sousa Ramos, Symbolic dynamics of bimodal maps, *Port. Math.* 54 (1997) 1–18. [MR1440125 \(98d:58051\)](#)
8. B.P. Kitchens, Symbolic Dynamics: One-Sided, Two-Sided and Countable Markov Shifts, Universitext, Springer, 1998. [MR1484730 \(98k:58079\)](#)
9. N. Martins, J. Sousa Ramos, Cuntz–Krieger algebras arising from linear mod one transformations,in: Differential Equations and Dynamical Systems, Lisbon, 2000, in: Fields Inst.Commun., vol. 31, Amer. Math. Soc., Providence, RI, 2002, pp. 265–273. [MR1904519 \(2003h:37053\)](#)
10. W. Melo, S. van Strien, One-Dimensional Dynamics, Ergeb. Math. Grenzgeb. (3), vol. 25, Springer-Verlag, Berlin, 1993, xiv+605 pp. [MR1239171 \(95a:58035\)](#)

Ref (MathSciNet-AMS) [MR2729225](#) 37Bxx (37E05 46Lxx)