Publications and Patents
Brian Marcus

Research Publications


6. The horocycle flow is mixing of all degrees, Inventiones Math. 46 (1978) 201-209.


9. Factors and extensions of full shifts, Monats. fur Math., 88 (1979) 239-247. Corrections: in the statement of Theorem 6, “irreducible” should be replaced by “mixing;” in the Note immediately following the statement of Theorem 6, “on either one-sided level” should be replaced by “in the category of regular isomorphism.”


22. Resolving Maps and the Dimension Group for shifts of finite type (with M. Boyle and P. Trow), Memoirs AMS, v.70, no. 377 (1987). Correction: the first condition in Remark 3.9 is incorrect. The condition at the end of this remark is correct. This is corrected by deleting the material in that remark from just past “iff” to just before “(1).”


34.Finite State Modulation Codes for Data Storage (with P. Siegel and J. Wolf), IEEE Journal on Selected Areas of Communication, 10 (1992) 5-37.


38. Construction of polynomial-size encoders with small decoding lookahead for input-constrained channels (with J. Ashley and R. Roth),
40. Boundary measures of Markov chains (with E. Cawley and S. Tuncel), Israel J. Math, 94 (1996), 111-123.
49. Coding tradeoffs for high-density holographic data storage (with G. Burr), SPIE Conference Proceedings (symposium on optical science, engineering, and instrumentation), v, 3802 (1999), 18 – 29.
51. Iterative decoding of tail-biting trellises and connections with symbolic dynamics, (with G.D. Forney, F. Kschischang, and S Tuncel), IMA


59. Optimal block-type decodable encoders for constrained systems (with P. Chaichanavong), IEEE Transactions on Information Theory, 49 (2003), 1231 - 1250.


73. Concavity of Mutual Information Rate for Input-Restricted Finite-State Memoryless Channels at High SNR (with G. Han), IEEE Transactions on Information Theory, 58 (2012), 1534 - 1548.


84. Gibbsian representations of continuous specifications: the theorems of Kozlov and Sullivan revisited (with S. Barbieri, R. Gómez, T. Meyerovitch, and S. Taati) Communications in Mathematical Physics, 382, 1111-
1164, 2021.


**Book**


**Edited Book**


**Book Chapters**


**Other Expository Publications**

1. The impact of Roy Adler’s work on symbolic dynamics and applications to data storage, Contemporary Mathematics, 135 (1992), 33-56.


**Published Technical reports**


**Patents issued**


2. J. Ashley, G. Jaquette, B. Marcus and P. Seger, Runlength limited


