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Number of pseudo-Anosov elements in the mapping class group of a four-holed sphere

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Abstract: We compute the growth series and the growth functions of reducible and pseudo-Anosov elements of the pure mapping class group of the sphere with four holes with respect to a certain generating set. We prove that the ratio of the number of pseudo-Anosov elements to that of all elements in a ball with center at the identity tends to one as the radius of the ball tends to infinity.

Key Words: Mapping class group, growth series, growth functions

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