On invariant volumes of codimension-one Anosov flows and the Verjovsky conjecture

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In [1], the author claimed the solution to the Verjovsky conjecture, i.e., the complete classification of codimension-one Anosov flows up to topological equivalence in higher dimension. It was a consequence of the following three results which are mutually independent:

1. The main theorem of [1]: any codimension-one topologically transitive Anosov flow is topologically equivalent to a volume-preserving one.
2. Simić's theorem [2]: any volume-preserving codimension-one Anosov flow in higher dimension is topologically equivalent to the suspension flow of a hyperbolic toral automorphism.
3. Verjovsky's theorem [3]: any codimension-one Anosov flow in higher dimension is topologically transitive.

However, a serious gap was found in the proof of the Simić's theorem in [2] and it is not fixed yet. So, the Verjovsky conjecture is still open at this moment.

References

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