

**ON A GENERALIZATION OF  
THE CONJECTURE OF MAZUR–TATE–TEITELBAUM**

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ABSTRACT. We propose a generalization of the conjecture of Mazur–Tate–Teitelbaum (predicting an exact shape of the  $p$ -adic  $\mathcal{L}$ -invariant of rational Tate curves (which is now a theorem of Greenberg–Stevens) to the symmetric powers of motivic two dimensional odd Galois representations over totally real fields. At  $p$ -adic places where the motive is multiplicative, the  $\mathcal{L}$ -invariant is conjectured to have the same shape as predicted by them. Then we prove our conjecture assuming a precise ring theoretic structure of the universal infinitesimal Galois deformation ring of the symmetric power.

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