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Georgia Benkart, Rekha Biswal, Ellen Kirkman, Van Nguyen and Jieru Zhu*,
jieruzhu699@gmail.com. *Double centralizer properties for the Drinfeld double of the Taft algebras.*

The Drinfeld double of the Taft algebra D_n , whose ground field contains n -th roots of unity, has a list of 2-dimensional irreducible modules. For each of such module V , we show that there is a well-defined action of the Temperley-Lieb algebra TL_k on the k -fold tensor product of V , and this action commutes with that of D_n . We further establish that when V is self-dual and when $k \leq 2(n-1)$, the centralizer algebra $\text{operatorname{End}}_{D_n}(V^{\otimes k})$ is isomorphic to TL_k . Our inductive argument uses a rank function on the TL diagrams, which is compatible with the nesting function introduced by Russell-Tymoczko. This is joint work with Georgia Benkart, Rekha Biswal, Ellen Kirkman and Van Nguyen. (Received September 15, 2020)