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$$G \rightarrow \text{Sym}(n)$$

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permutation groups

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$$G \rightarrow \mathrm{GL}_n(\mathbb{C}), g \mapsto (g_{ij})$$

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representation theory

# A little bit of my research



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Related to primes  $p$  dividing  $|G|$  (local subgroups).

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$\mathbf{N}_G(P)$ ,  $\mathbf{C}_G(P)$ ,  $P$  where  $P$  is a non-trivial  $p$ -subgroup.

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Find global local character correspondences that commute with the action of  $\mathcal{H}$  on character ( $\mathcal{H}$  is a Galois group over  $\mathbb{Q}_p$ ).

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♥ Global local theory lies at the heart of the GRTA program ♥