

# Explicit construction of Gelfand-Tsetlin $\mathfrak{gl}(n)$ -modules

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The main idea of the talk is to describe a effective method of constructing explicitly Gelfand -Tsetlin modules for  $\mathfrak{gl}_n$  (relation modules). We obtain a large family of simple modules that have a basis consisting of Gelfand-Tsetlin tableaux, the action of the Lie algebra is given by the Gelfand-Tsetlin formulas.

## References

- [1] V. FUTORNY, L.E. RAMIREZ, J. ZHANG , *Combinatorial construction of Gelfand-Tsetlin modules for  $\mathfrak{gl}_n$* , Advances in Mathematics, Vol 343, 681–711 (2019)