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## invariant polynomial

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An *invariant polynomial* is a polynomial  $P$  that is invariant under a (compact) Lie group  $\Gamma$  acting on a vector space  $V$ . Therefore  $P$  is  $\Gamma$ -invariant polynomial if  $P(\gamma x) = P(x)$  for all  $\gamma \in \Gamma$  and  $x \in V$ .

## References

[GSS] Golubitsky, Martin. Stewart, Ian. Schaeffer, G. David: Singularities and Groups in Bifurcation Theory (*Volume II*). Springer-Verlag, New York, 1988.