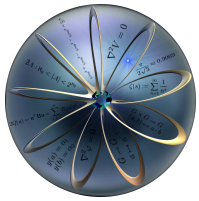

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fixed-point subspace

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Let $\Sigma \subset \Gamma$ be a subgroup where Γ is a compact Lie Group acting on a vector space V. The *fixed-point subspace* of Σ is

$$\mathrm{Fix}(\Sigma) = \{x \in V \mid \sigma x = x,\ \forall \sigma \in \Sigma\}$$

$\mathrm{Fix}(\Sigma)$ is a linear subspace of V since

$$\mathrm{Fix}(\Sigma) = \bigcap_{\sigma \in \Sigma} \ker(\sigma - \mathrm{I})$$

where I is the identity. If it is important to specify the space V we use the following notation $\mathrm{Fix}_V(\Sigma)$.

References

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