

Achieving invariance to groups of symmetries G is a classical problem from machine learning and image processing.

Classical invariant layers, such as the Max G-pooling and the power spectrum are excessively invariant: qualitatively different inputs can yield the same output.

Complete invariance removes group transformations with no loss of signal structure. Examples of complete G-Invariant layers are the G-Triple Correlation, the G-Bispectrum and the selective G-Bispectrum.





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The Selective *G*-Bispectrum and its Inversion:
Applications to *G*-Invariant
Networks

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