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A Novel Formulation of Orthogonal Polynomial Kernel Functions for SVM Classifiers: the Gegenbauer Family

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Highlights

- A novel formulation of orthogonal kernels for SVM classifiers is presented.
- The harmful Annihilation and Explosion effects are identified and resolved.
- The Gegenbauer family of orthogonal kernels is introduced and evaluated.
- Gegenbauer achieves similar accuracy to the RBF kernel and better generalization.

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