

5. CONCLUSION

SVDD Algorithm brings low accuracy and detection rate. To solve this problem, we introduce the cost-sensitive ideology and put forward SVDD Algorithm Based on Noise Cost for Anomaly detection in hyperspectral imagery. In the algorithm, background training samples are given different noise-cost values. We introduce noise cost into SVDD to rebuild hypersphere in this way. Then, perform experiment on simulation data and real hyperspectral data AVIRIS. The results show that:

1. Reduce the probability of abnormal pixel mixed into training samples
2. Enhance the algorithm sensitivity to abnormal pixels
3. Improve the hyperspectral imagery abnormality detection accuracy.
4. Reduce the false alarm rate.
5. The classified boundaries are more compact
6. Reduce the computation time.

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