



# A Novel Classification Approach based on Multiobjective Framework with High Level Learning

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**Objective:** To enhance the classification capability of low level supervised classifier which consider only the physical characteristics of data. We propose a novel approach which incorporating the low level kernel based semi supervised learning along with high level learning and helps to enhance the overall classification capability of the classifier.

**Introduction:** The classification capability of supervised classifier based on Multiobjective function open the more wider range of analyzing the measures for improving the classification capability of the classifier. The design of novel approach which incorporate both the low level and high level learning is the future area of concern. The low level classification based on supervised or unsupervised learning measure only the physical characteristics of the data but not the underlying structure or pattern formation of data. Therefore, the proposed approach will leads to the enhancement of classification capability of low level classifier.

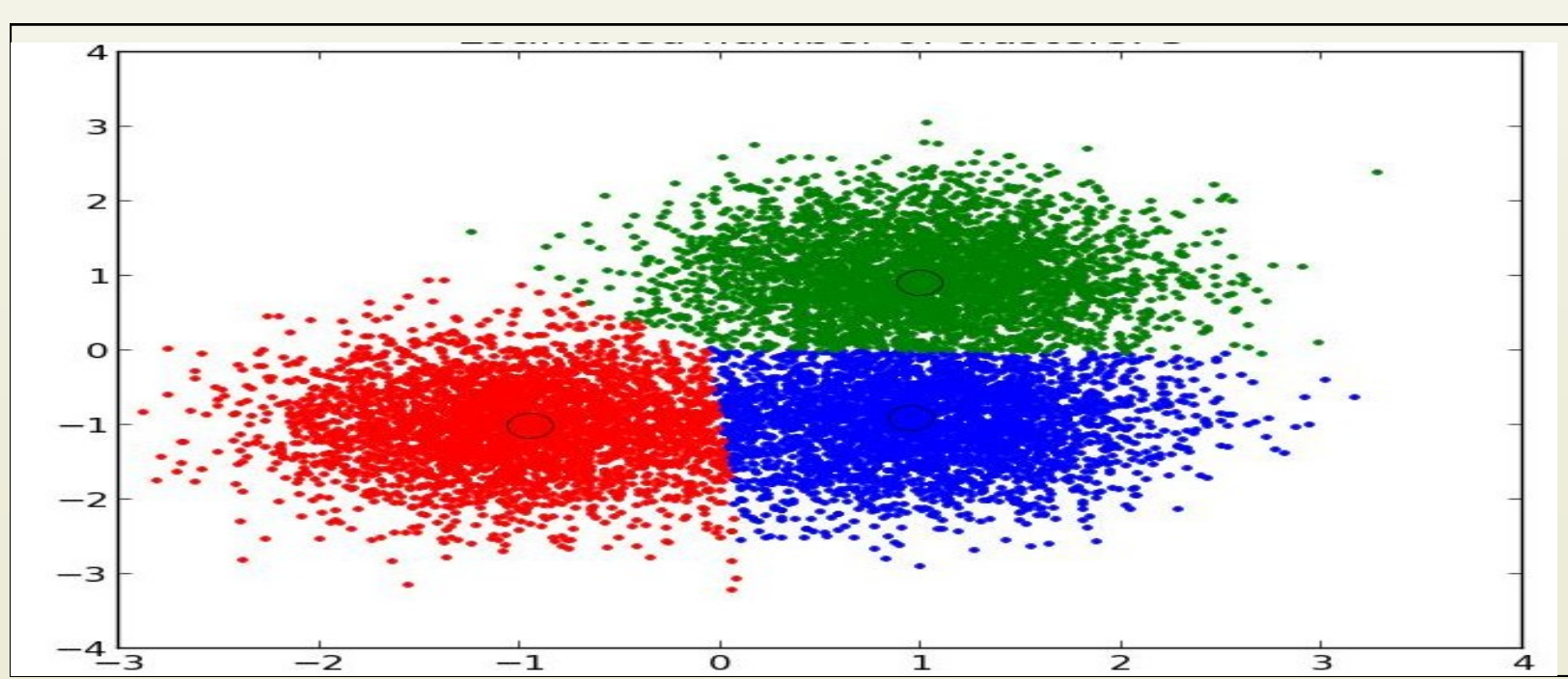
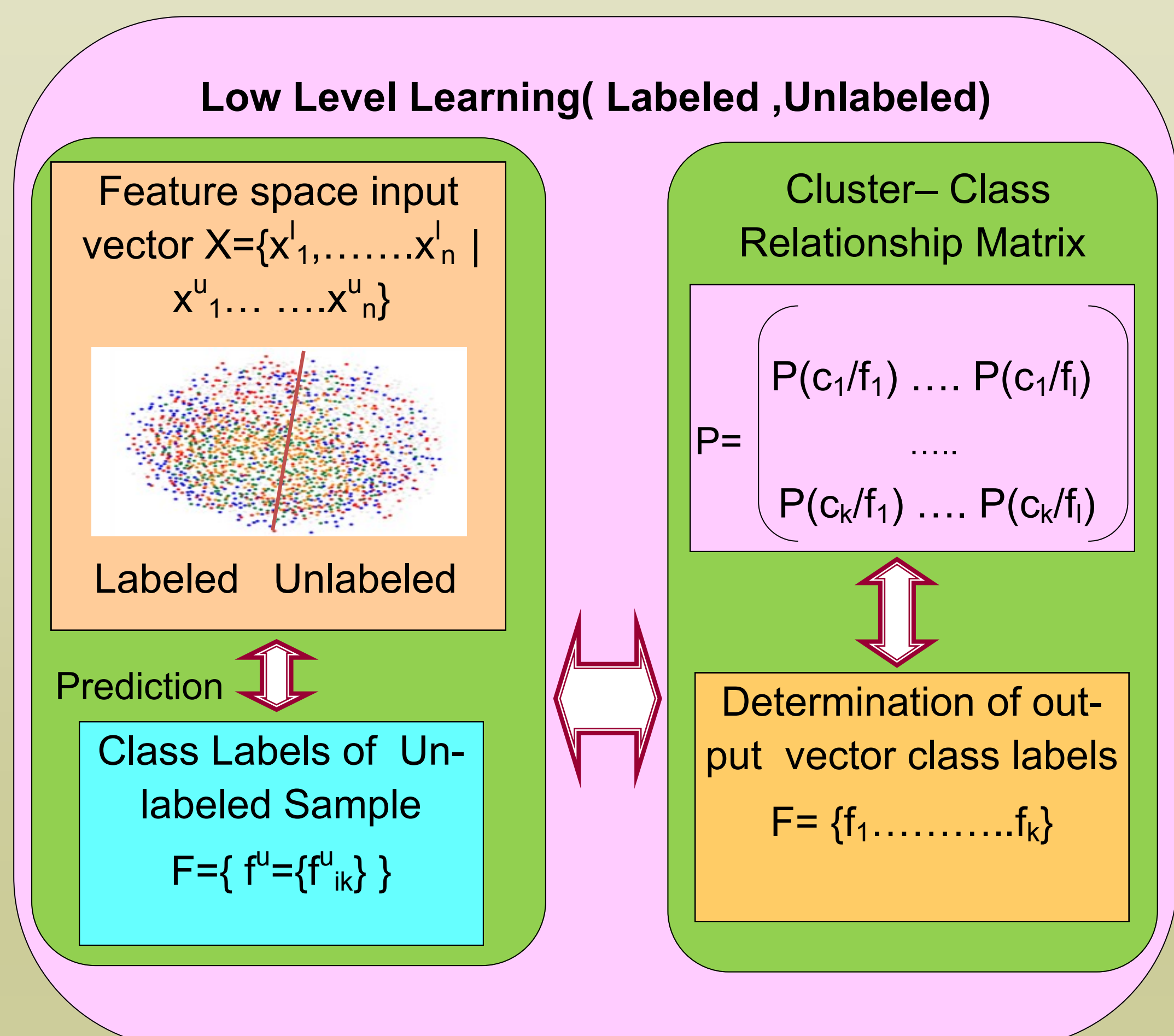


Fig. 1 Formation of cluster

## Proposed Architecture



**X:** Training Sample  
**x<sup>l</sup>:** Labeled Sample  
**x<sup>u</sup>:** Unlabeled Sample

**C:** Cluster  
**F:** Class labels  
**J:** Objective function

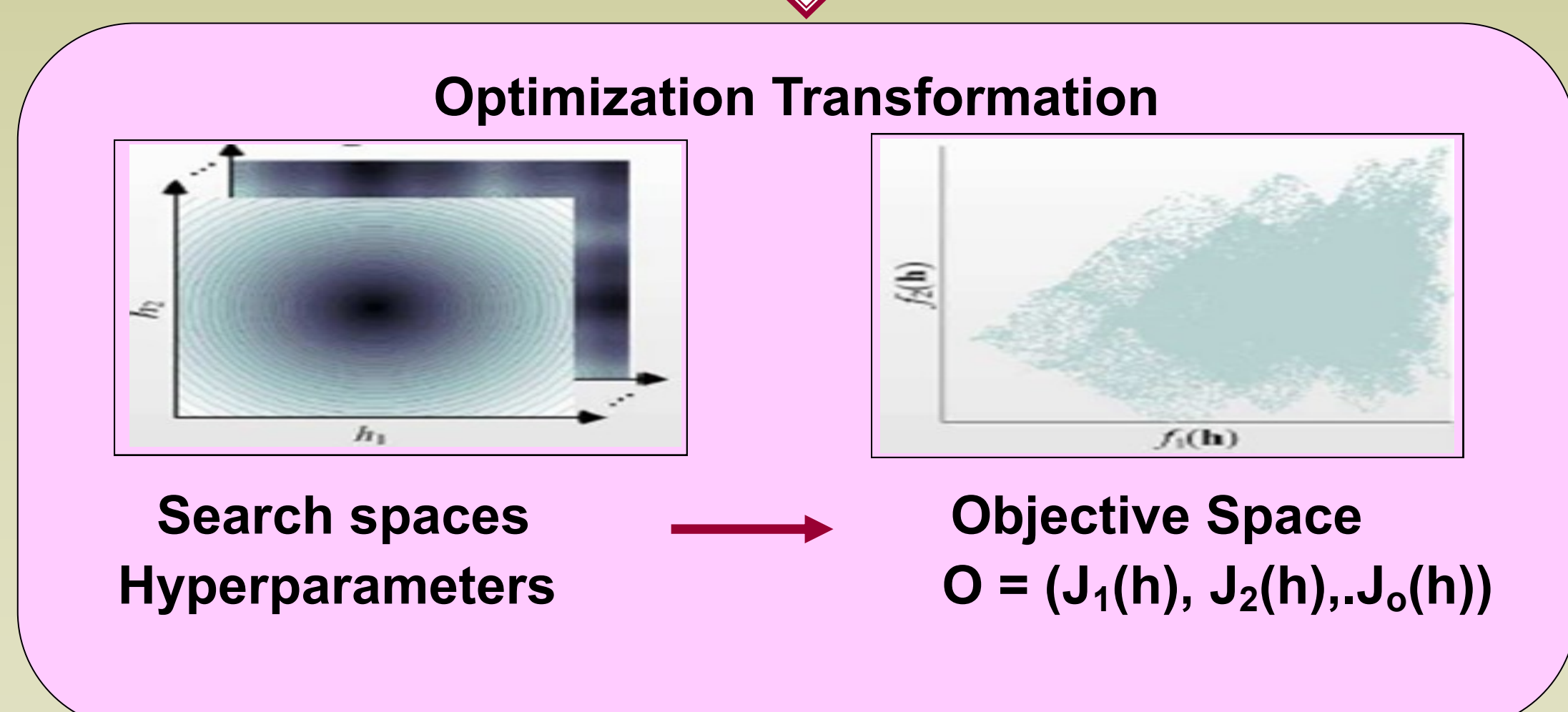


Fig. 2 Prediction of Class Labels

## High Level Learning

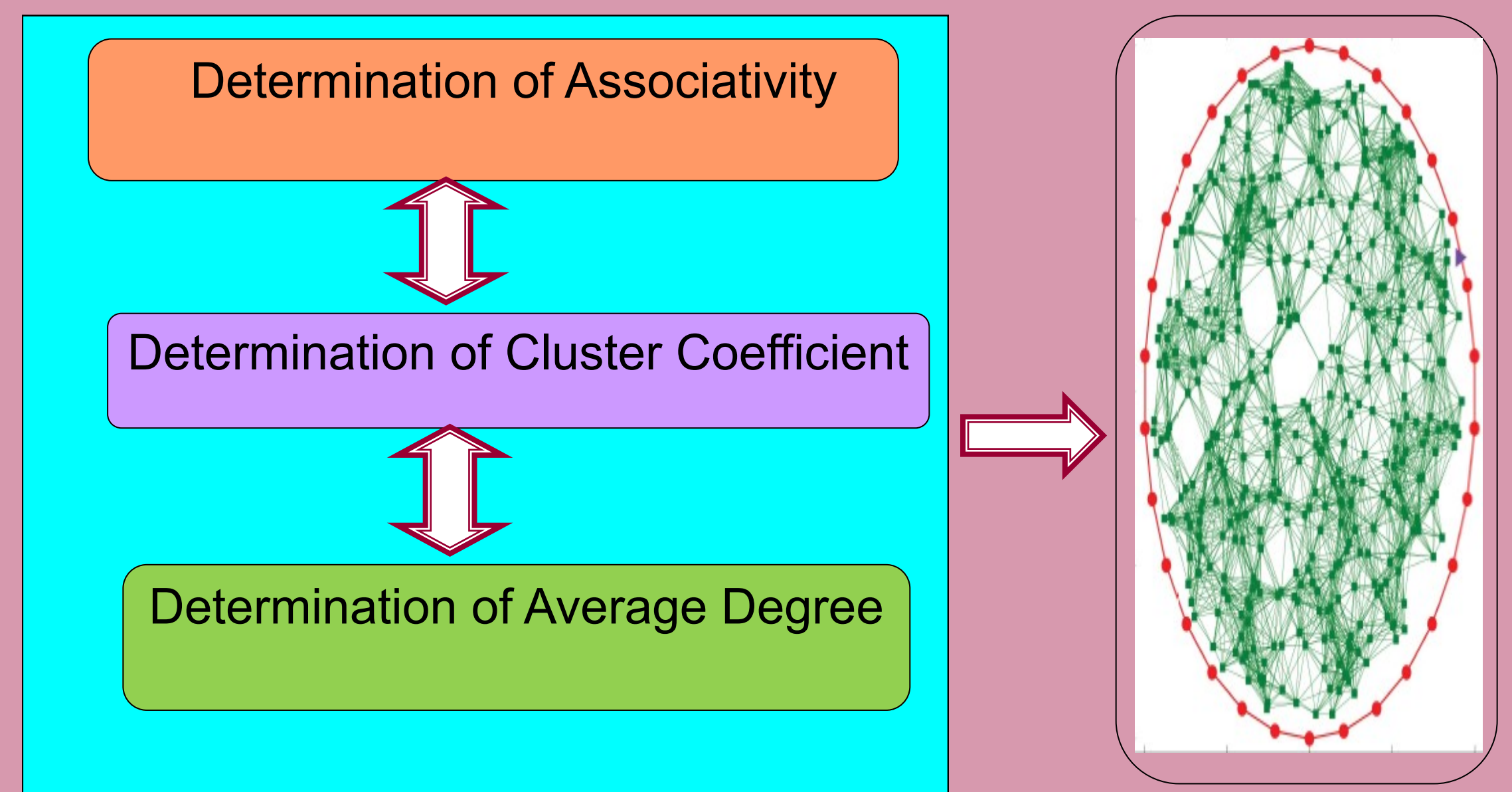


Fig. 3 Prediction of Pattern

## Design of Novel Classification Approach

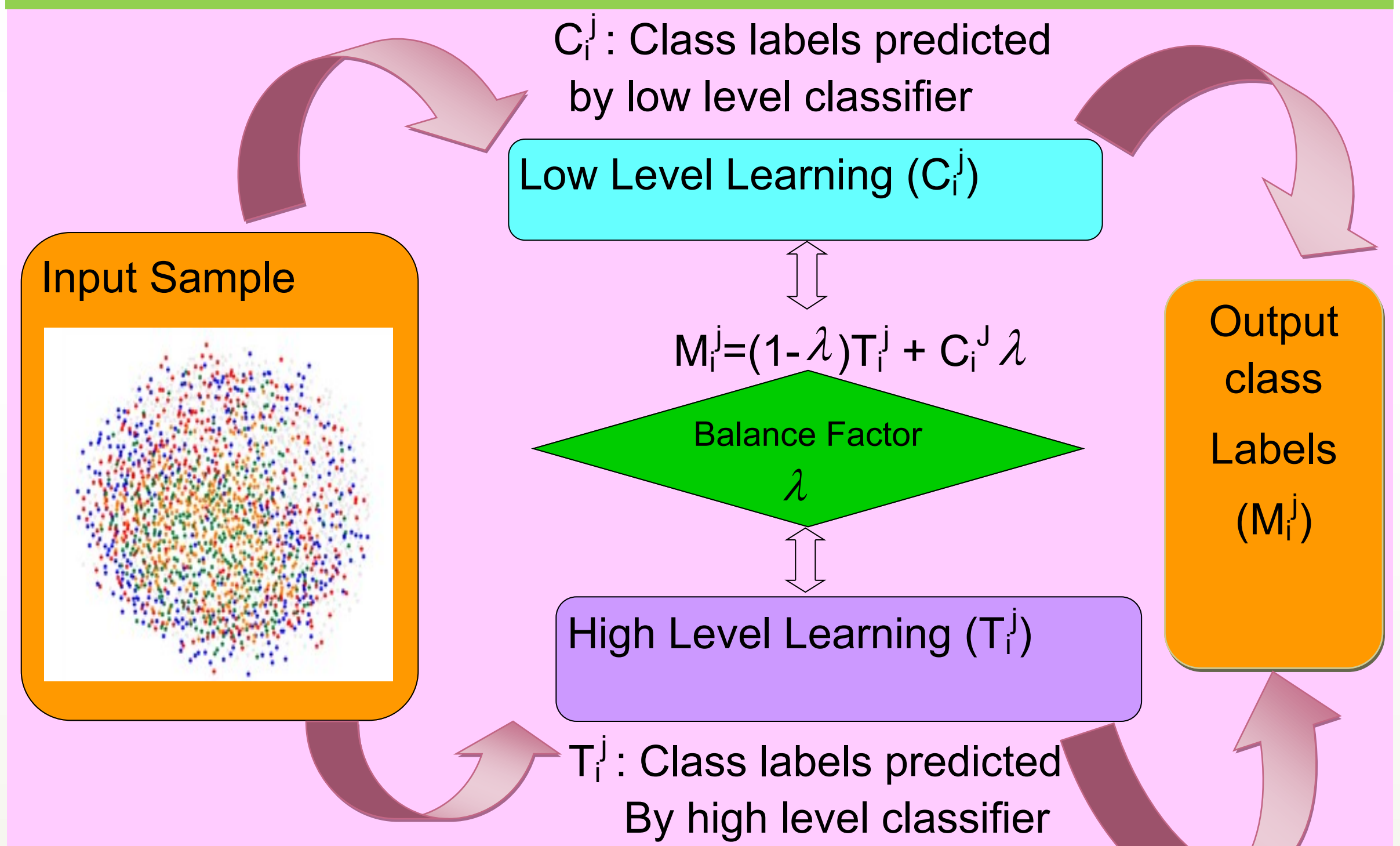


Fig. 4 Novel Classification Approach

## Conclusion

- 1) A novel approach for determination of output class labels with high learning.
- 2) Design of high level classifier analyze both the physical measure and the semantic meaning of underlying network constructed using input data.

## References

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