

This dataset includes inputs which are shape and texture features extracted from microscopical images of pollen grains in the air. The classes are the plant species (*Parietaria Judaica*, *Urtica Urens* and *Urtica Membranacea*). The dataset has:

- 291 instances
- 23 inputs
- 3 classes

The data are in the file `pollen_grains.dat`. Each input is standardized with mean zero and standard deviation one. The file `partitions.dat` includes 10 groups of 3 lines, each group associated to a random partition of the available data. The first line in each group contains the indices of the training patterns (50% of the patterns); the second line contains the indices of the validation patterns (25% of the patterns); the third line contains the indices of the test patterns (25% of the patterns).

Reference

```
@article{rodriguez06,  
author = "Rodríguez-Damián, M. and Cernadas, E. and Formella, A. and Fernández-Delgado, M. and Sà-Otero, P.",  
title = "Automatic detection and classification of grains of pollen based on shape and texture",  
journal = "IEEE Trans. Syst. Man Cybern., Part C",  
volume = 36,  
issue = 4,  
pages = "531–542",  
year = 2006  
}
```

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INFORMACIÓN

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PUBLICACIONES

Automatic detection and classification of grains of pollen based on shape and texture
IEEE Transactions on Systems, Man, and Cybernetics—Part C: Applications and Reviews, 2006