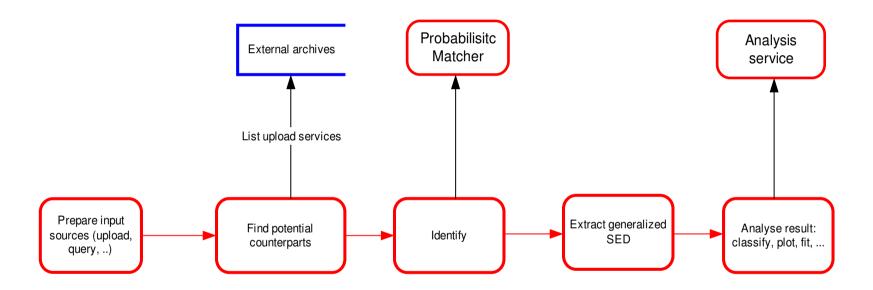
## Datamining VizieR and SDSS

Experiences with distributed querying, XMatch and SED extraction

- •Hans-Martin Adorf, GL, Julius Adorf
- •Wolfgang Voges, Stephanie Komossa

## General architecture (before ADQL and SkyNode)



## **Features**

- Uses list upload services iso separate cone searches
- Input list can contain physical properties
- Parallel queries to VizieR and SDSS
- Uses VizieR mirrors
- Uses XMatch for further refinement
- Can use alternative positions for XMatch, for example proper motion corrected
- GUI control center
- Feedback from science projects using it

## Issues

- Requires custom metadata for implementing XMatch
  - Error columns
  - Catalogue wide errors
- Resolution multiple matches
  - XMatch can help, up to a limit
  - Catalogue problems (USNO example)
  - Link to original data
- Is XMatch syntax sufficient for all use cases?
  - Error in SkyNode doc
  - Choice of astrometric columns up to user?
  - Systematic errors
  - Non-isotropic errors
- Performance improvement
  - Need to deal with "combinatorial explosion"
  - Find available and fast mirrors
- Use of SEDs
  - requires knowledge of apertures
  - Unit/filter conversion