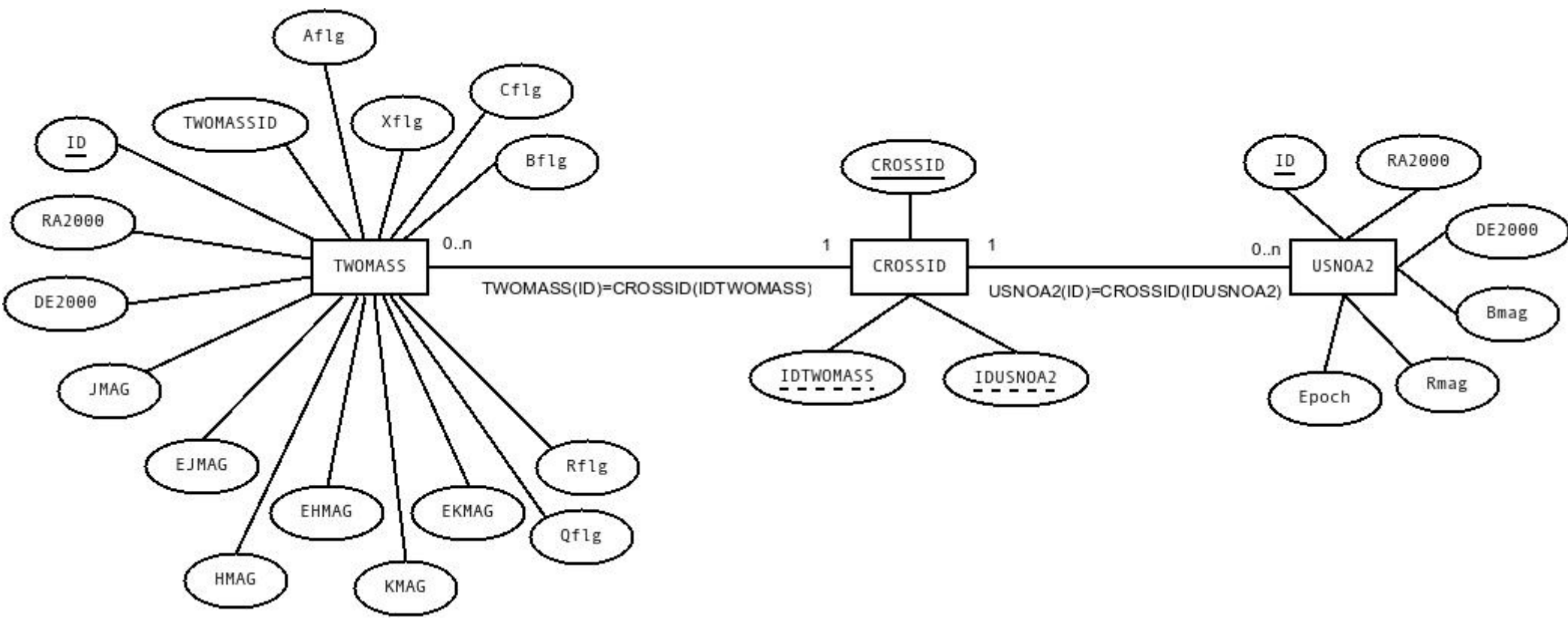# Cross-identification

- Draw ER diagrams for TWOMASS, USNOA2, CROSSID

- Draw UML diagrams for TWOMASS, USNOA2, CROSSID

- Draw SADT diagram for cross-identification process

- Draw UML diagram for cross-identification

Create database scheme

- Create database scheme from diagrams

- Implement database scheme

- Performe cross-identification on-the-fly (with one SQL statement)

- Performe cross-identification with python program

Variables

- SET @var:=0.0

- ROWNUM:

-   SELECT @rownum:=@rownum+1 ROWNUM, t.* from (SELECT @rownum:=0) r, TWOMASS t

Linear Regression

- $y = ax + b$
- $a = (n\sum xy - \sum x \sum y)/(n\sum x^2 - \sum x \sum x)$
- $b = \langle y \rangle - a\langle x \rangle$

Linear Regression in mySQL

- AVG, SUM, COUNT

Home

- Ingest 2 cones of 2 deg radius (one in galactic plane, 1 in NP or SP)

- Cross-identify

- Plot CMD

- Find completeness limit for each magnitude

- Find completeness limit for each color range