

# The 1<sup>st</sup> List of VLT/Calibrators

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# Background

- List of potential calibrator objects for VLTI observations
  - Siderostats (and UTs)
  - baselines from 8m to 140
- Tools for the selection of the calibrators associated to the scientific target  
(see CALVIN demonstration)

# Requirements

- Single object (or binary with large separation)
- No known (or very small) variability
- **Bright object** : K brighter than 3
- Spectral type
- No infrared excess, no peculiar spectrum ...
- **Known accurate diameter**
- **Sky coverage**
- **Range of size (baselines from <10m to >100m)**

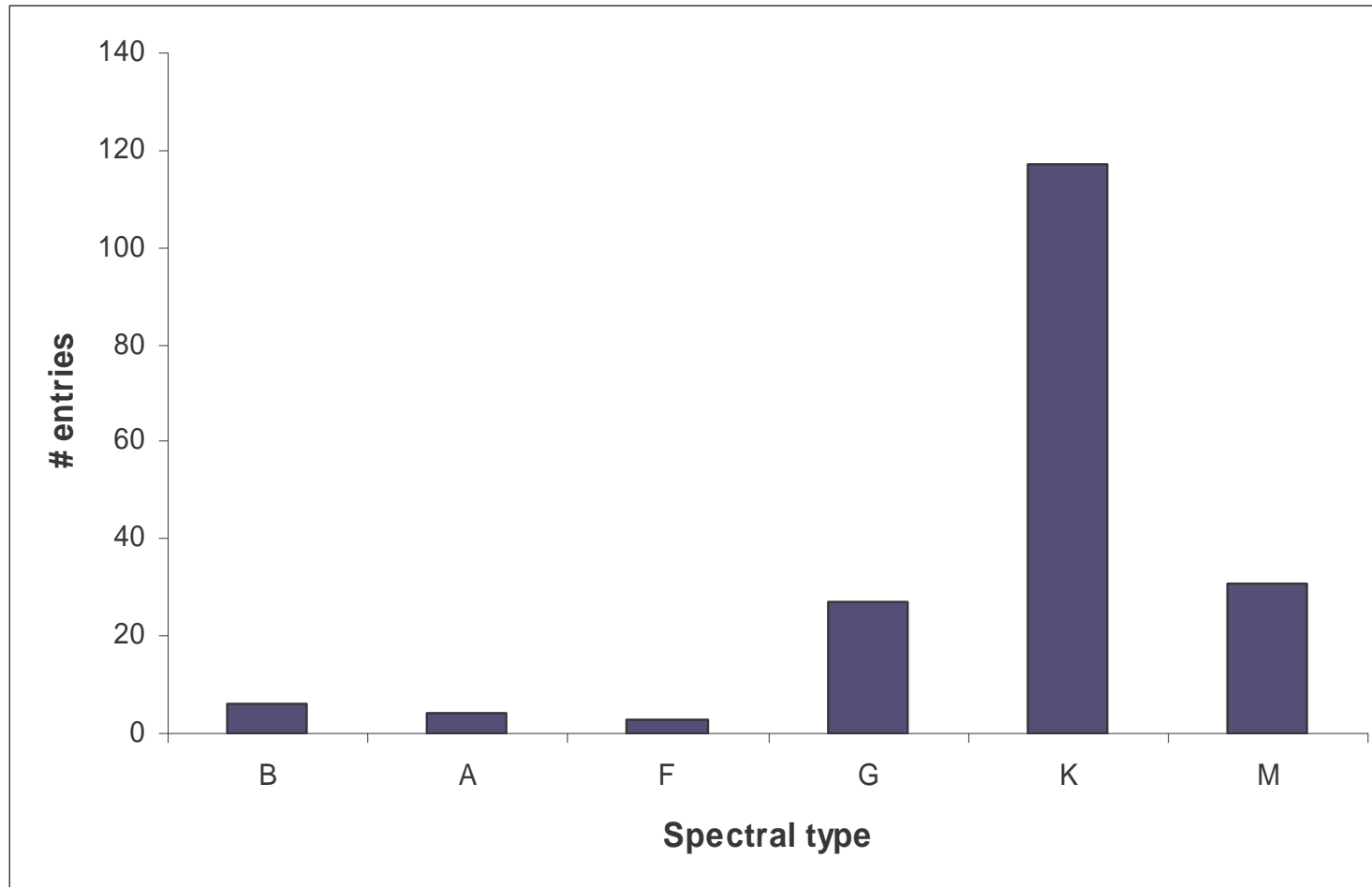
# Selection

- CHARM (direct and indirect measurements)
- Lists used at interferometric facilities
- Surveys (Hipparcos, Tycho ...)

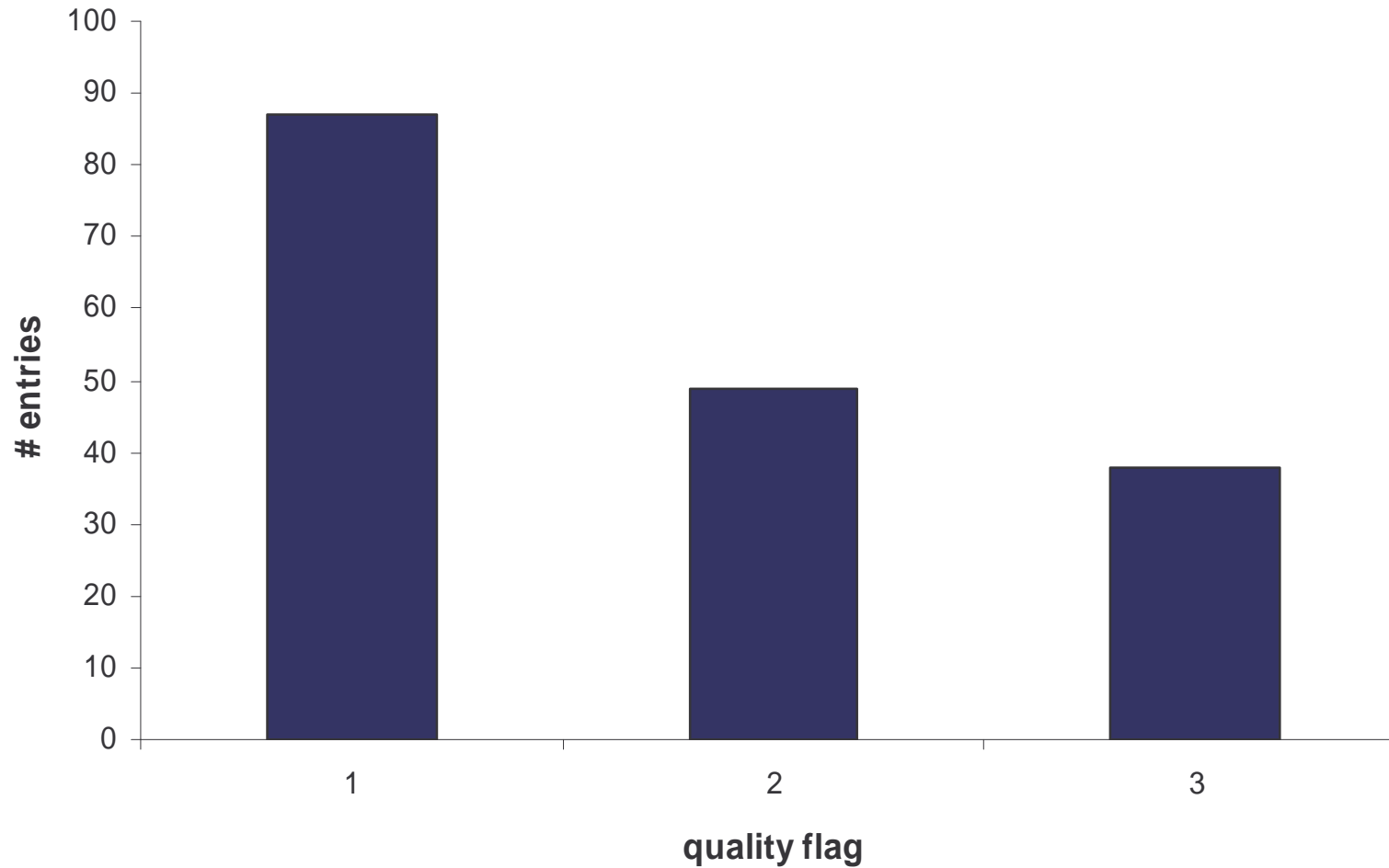
# Contents

- It includes:
  - Objects fulfilling the requirements (QF=1)
  - Objects with small deviations from the requirements (QF=2)
  - Objects not following all the requirements but already observed as calibrators in the first few months of VLT operations (QF=3)
- Total:
  - 181 potential VLT calibrators
- Format (see Richichi's presentation):
  - Name
  - Object coordinates
  - Magnitudes (B,V,K, and more)
  - Diameter, error,  $T_{\text{eff}}$  (with model atmosphere)
  - Quality flag (1 to 3)
  - Log file with history, special notes, etc

# Spectral Type distribution

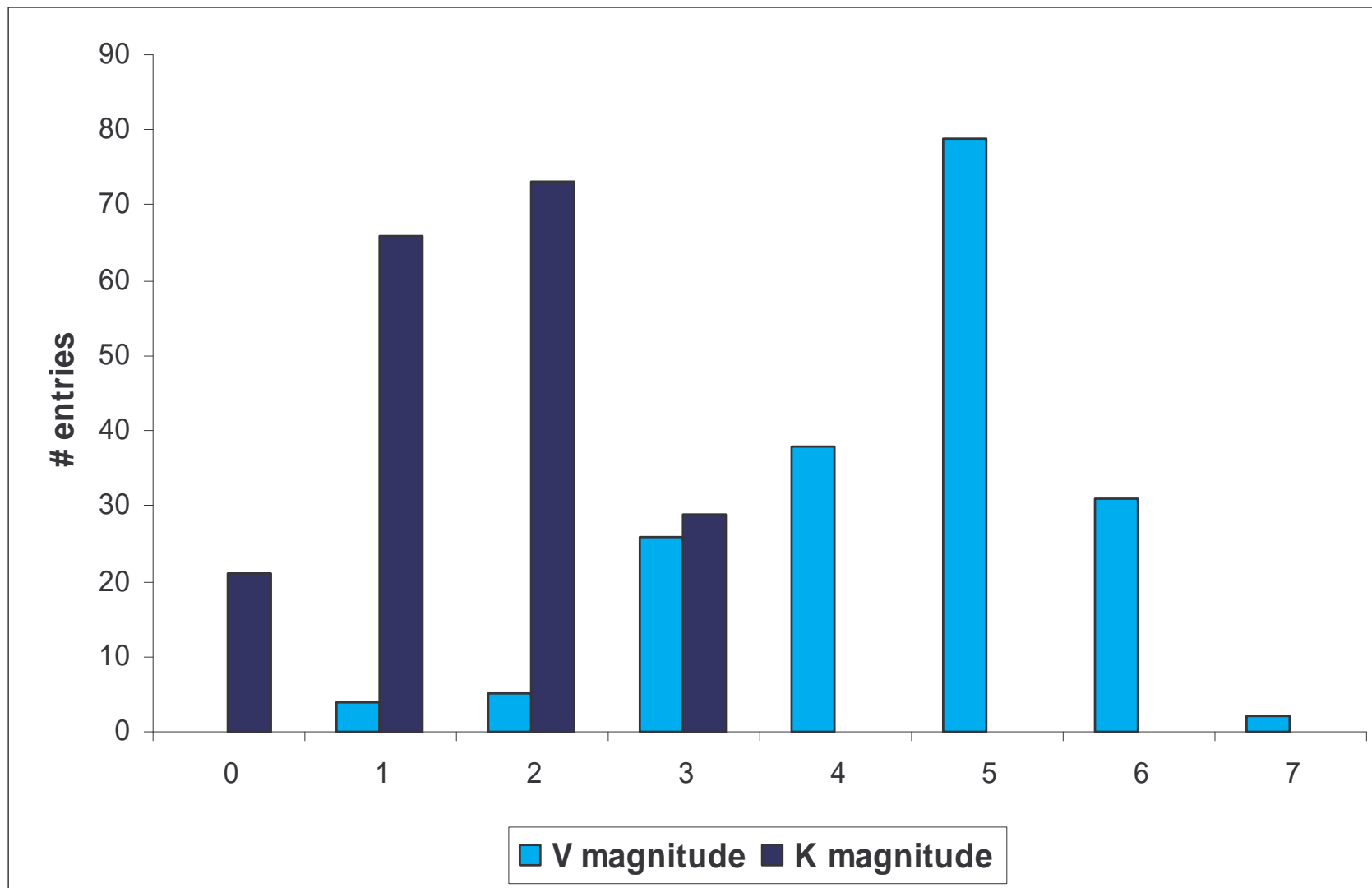


# Quality flags distribution



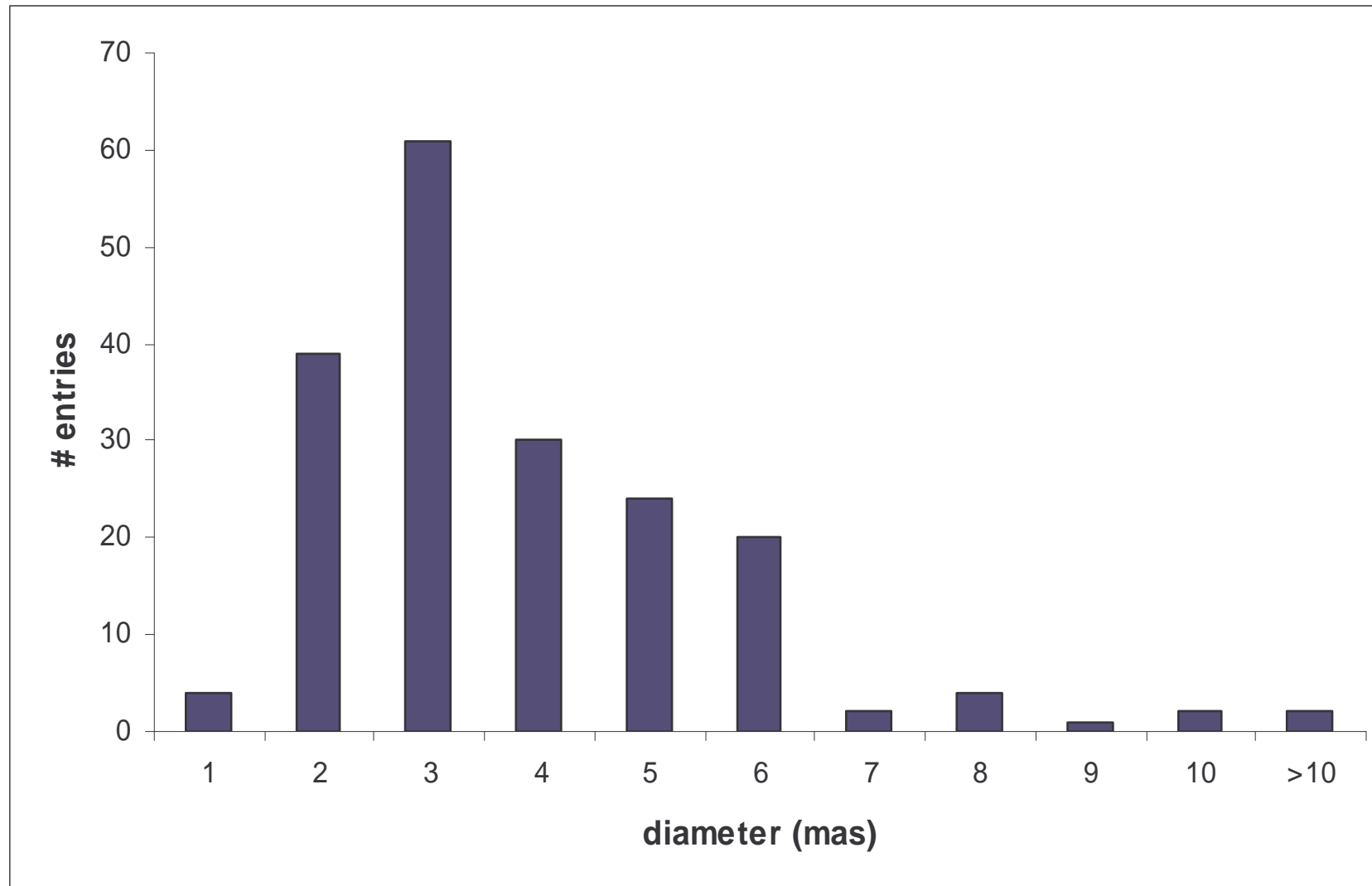
Calibrator workshop (30-31/01/03)

# Brightness distribution

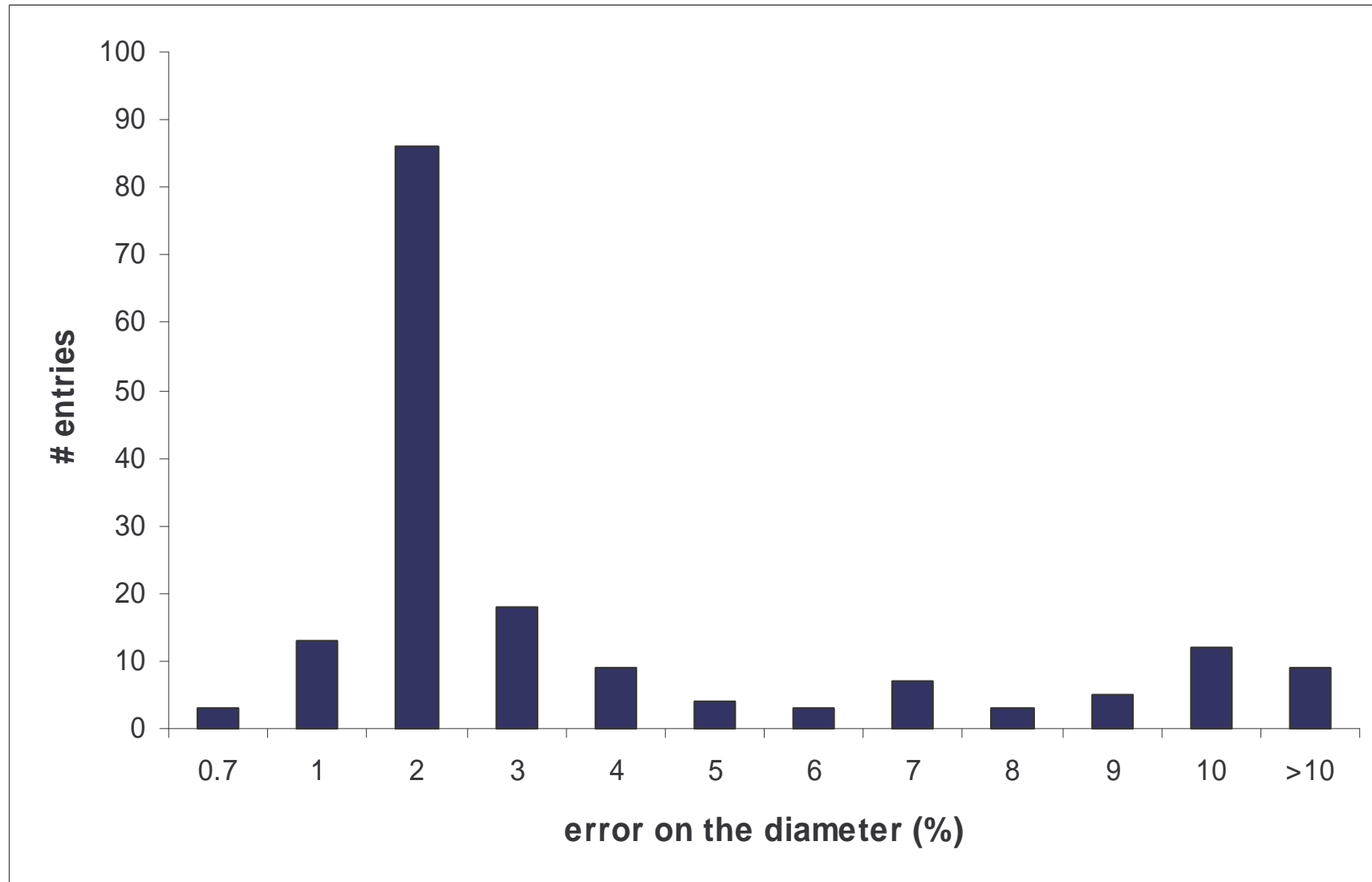


Calibrator workshop (30-31/01/03)

# Diameter distribution

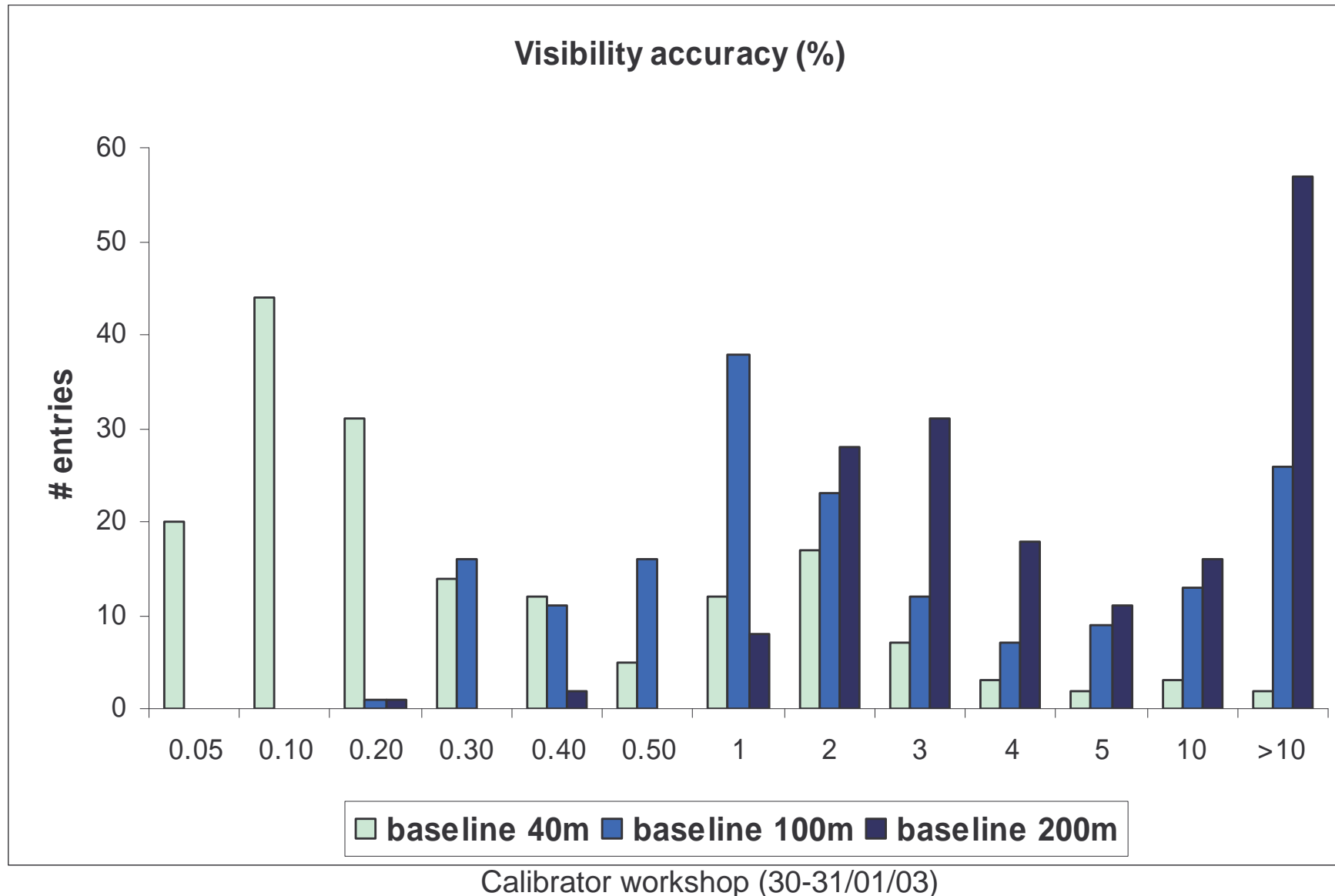


# Error on the diameter



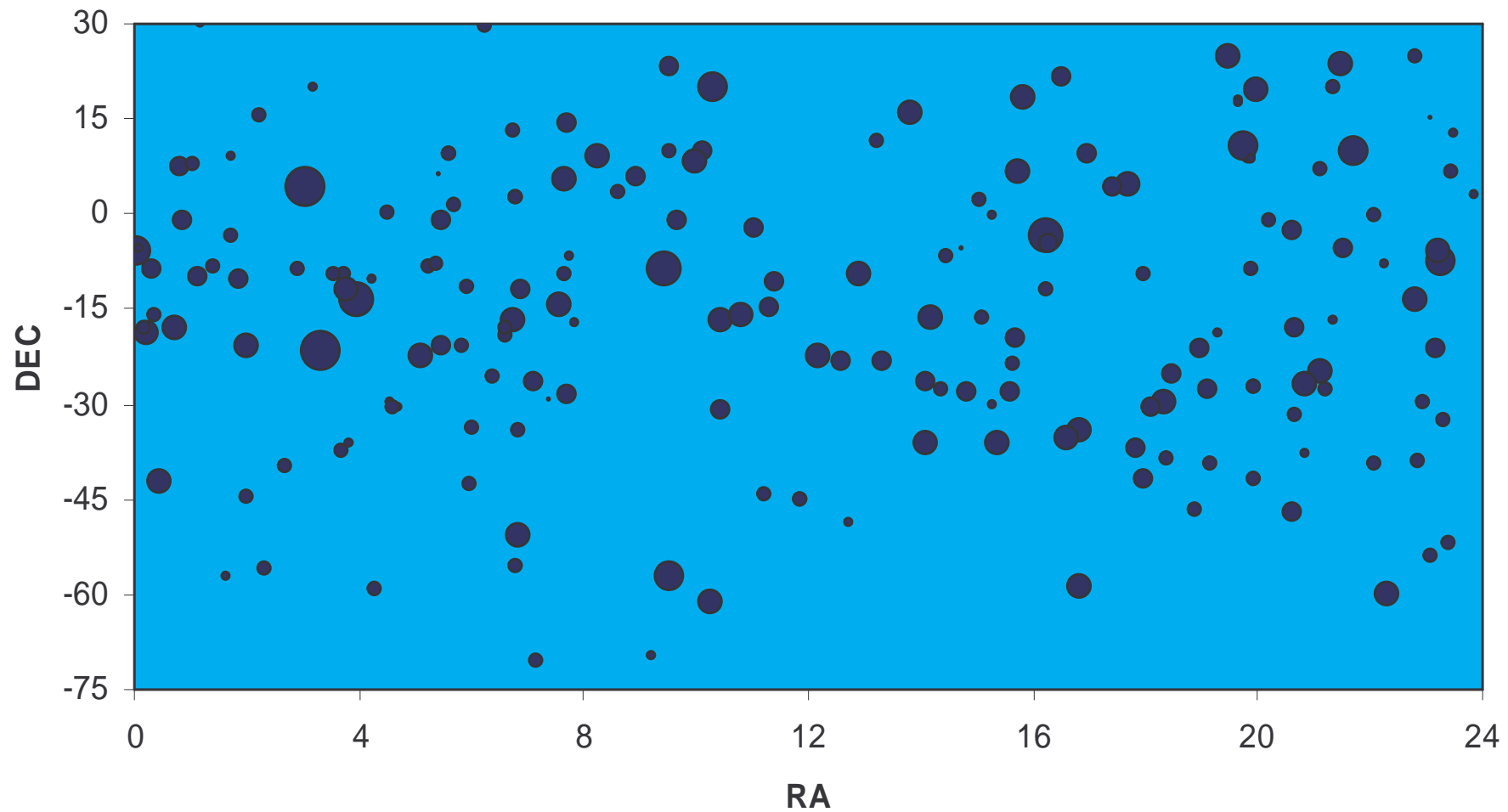
Calibrator workshop (30-31/01/03)

# Accuracy on the Visibility



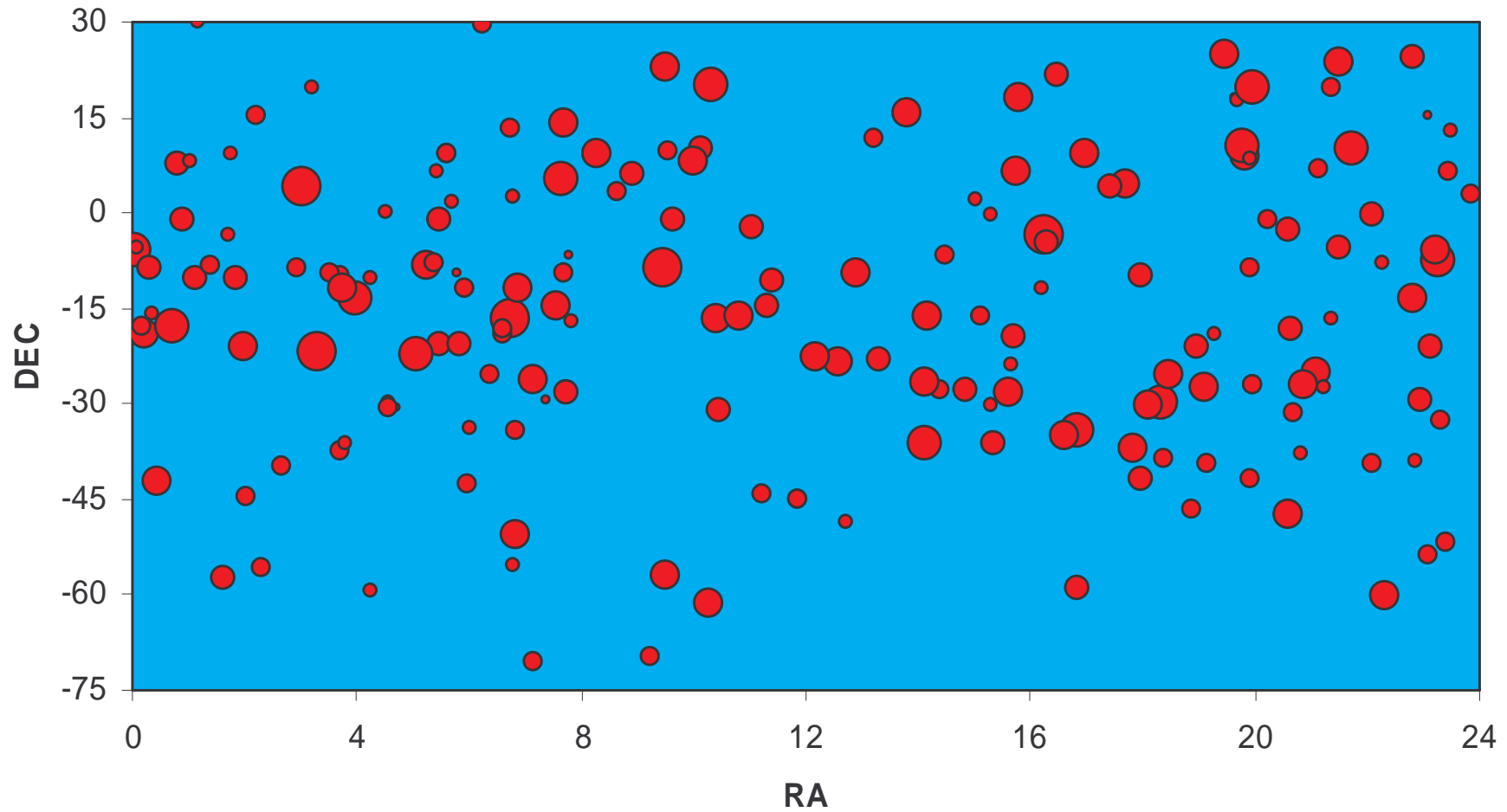
# Sky distribution

VLTI bright calibrators (diameters range: 0.6 to 11.5 mas)



# Sky distribution

VLTI bright calibrators (K mag range: -1.7 to 2.9)



# Updates of the VLTI List of Calibrators

- First Release: today!
- Following updates :
  - Diameters and errors will be updated with VLTI measurements

The present list of VLTI calibrators will be made public, as well as used in CALVIN