

GALANTE

Jesús Maíz Apellániz, CAB (CSIC-INTA) + GALANTE team

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Why GALANTE?

- Some problems with photometric surveys for OB stars:
 - ★ Saturation.
 - ★ Filter selection.
 - ★ Footprint.
 - ★ Field of view and old instrumentation.
 - ★ Long-term instrument stability and repeatability.

Javalambre: observatory and projects

- New observatory in Teruel, Spain.
- CEFCO: Centro de Estudios de Física del Cosmos de Aragón.
- Two telescopes: T250 and T80.
- Exclusive for wide-field optical imaging surveys.
- T80:
 - ★ 1.4 deg x 1.4 deg.
 - ★ 9216x9232 px, 0.55"/px.
 - ★ In operation.
 - ★ Low read-out noise, up to 0.1" exposures.



T80 images



Moon

JAST / T80 +Verification Camera

Observatorio Astrofísico de Javalambre



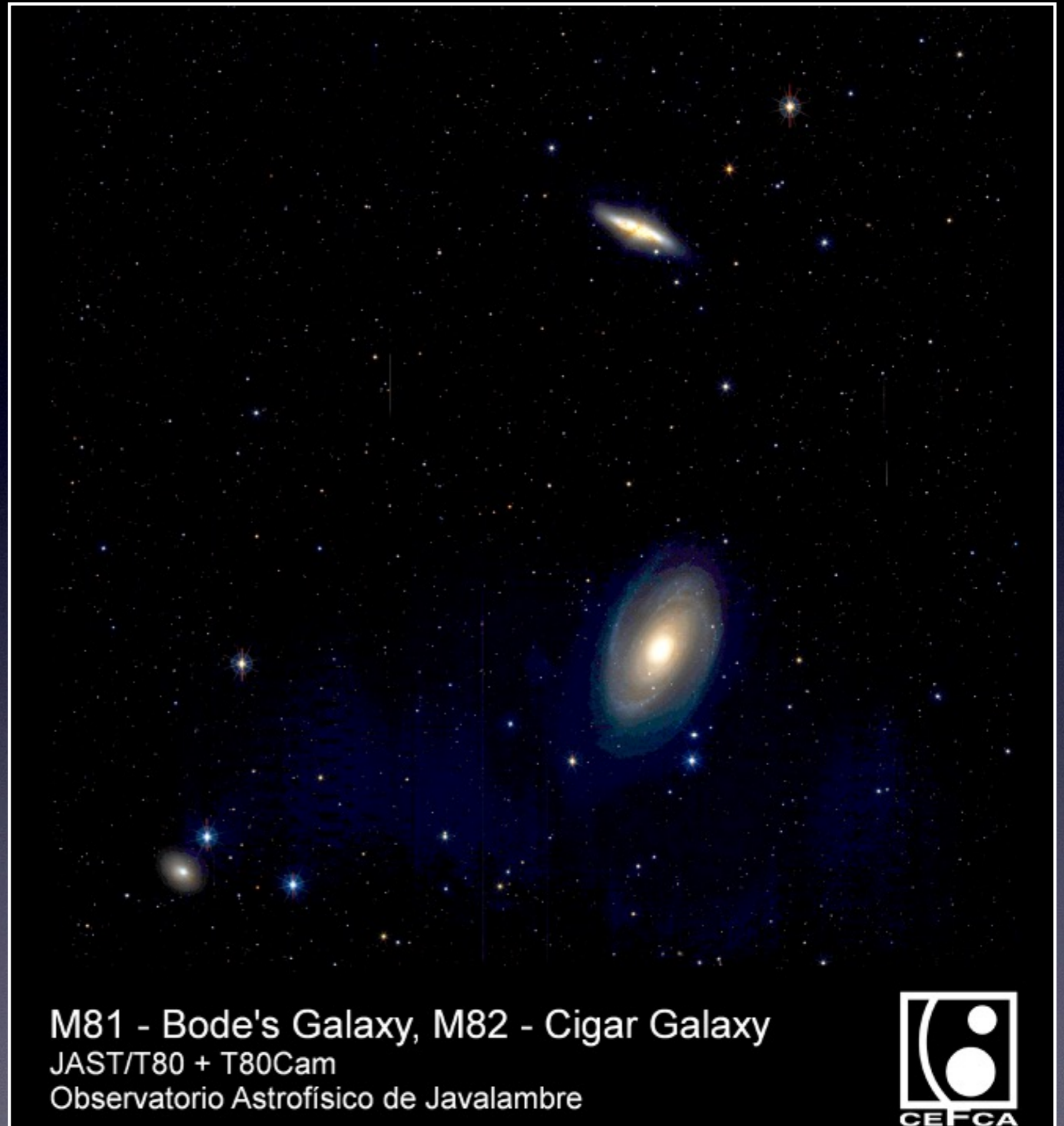
CEFCO

T80 images



M101 - Pinwheel Galaxy
JAST/T80 + T80Cam
Observatorio Astrofísico de Javalambre

T80 images



M81 - Bode's Galaxy, M82 - Cigar Galaxy
JAST/T80 + T80Cam
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T80 images



M81 - Bode's Galaxy

JAST/T80 + T80Cam

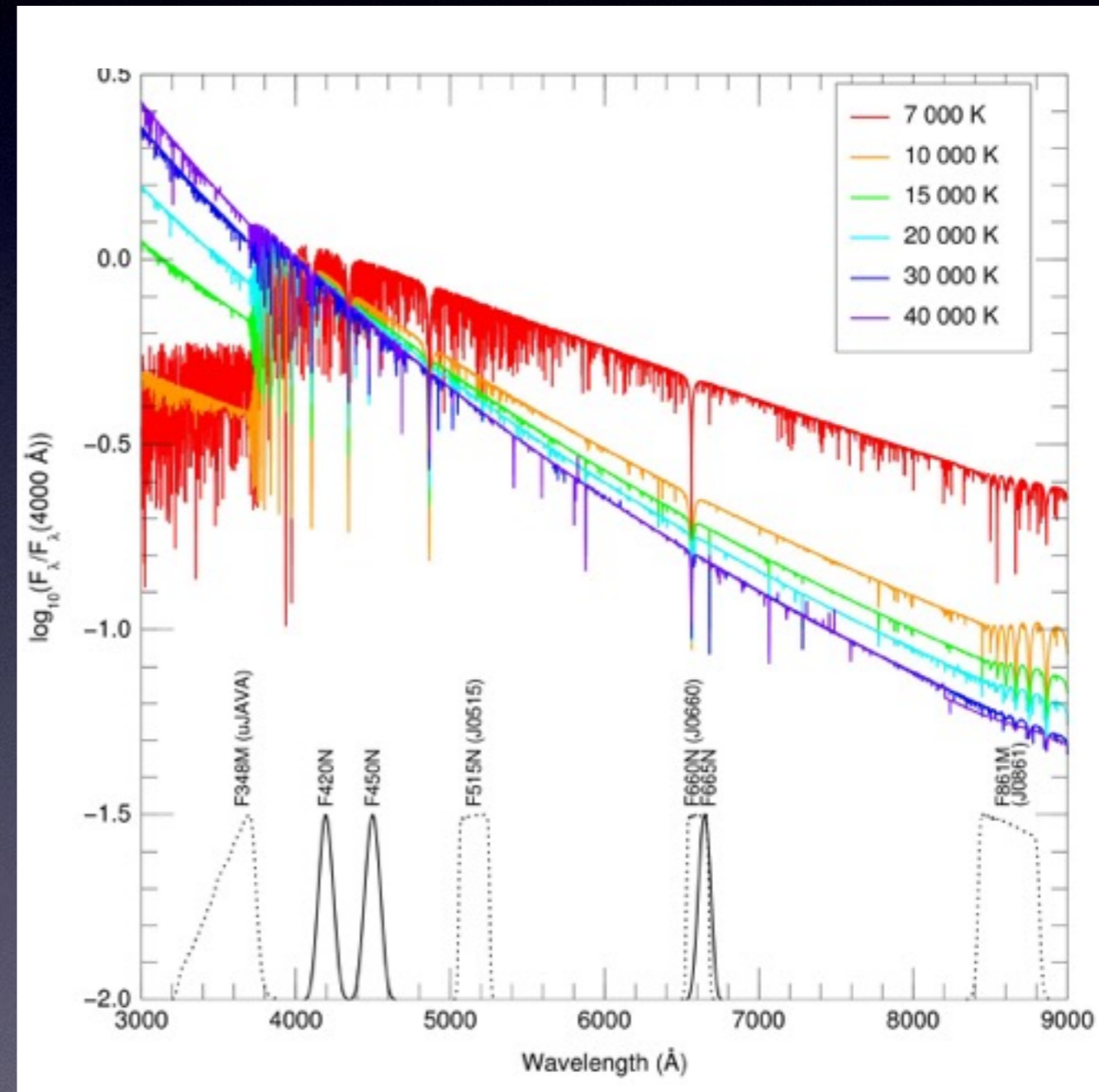
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OAJ

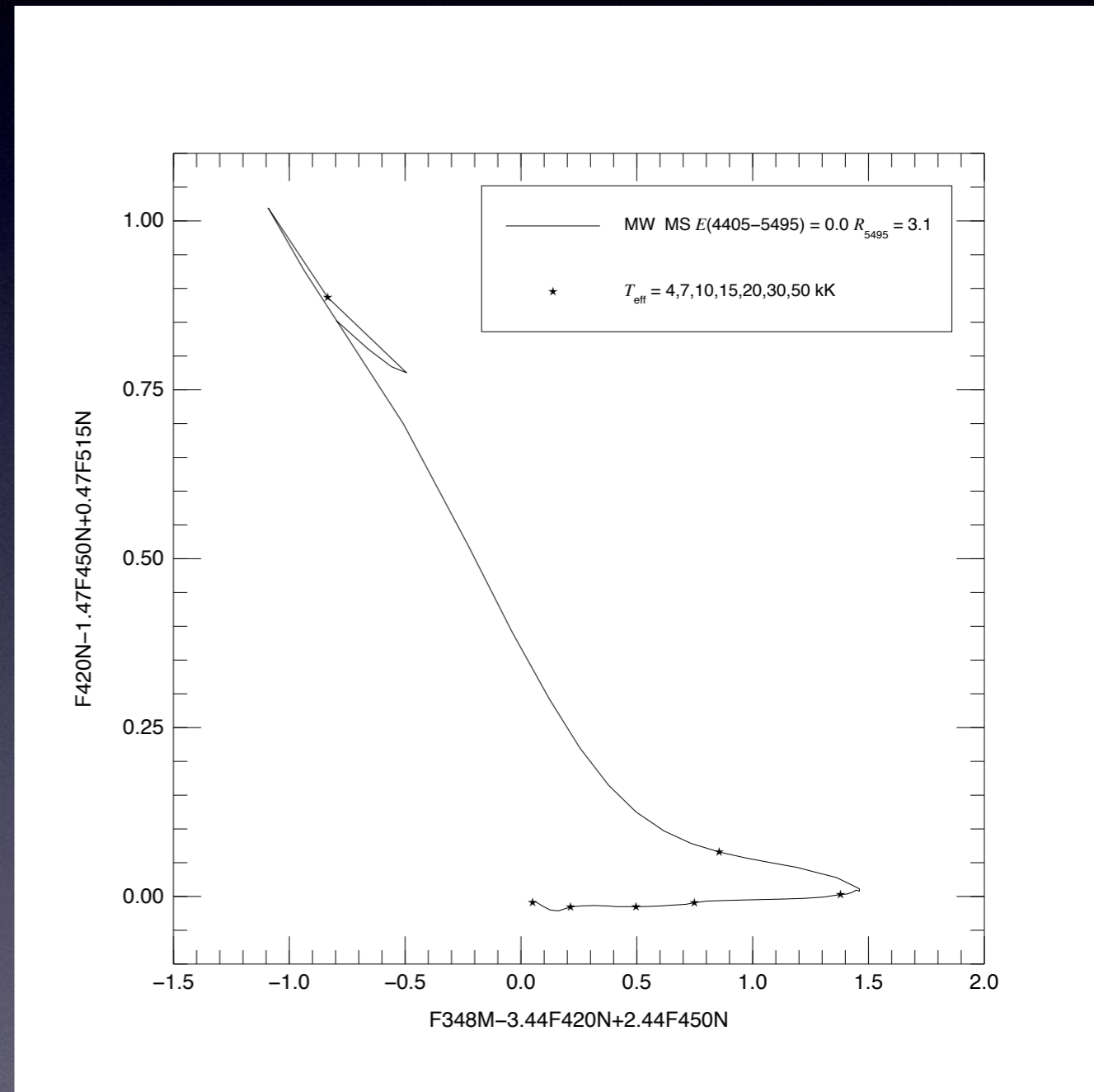
The GALANTE survey

- Northern Galactic Plane.
- ~3 nights/month in the T80.
- Exposure times from 0.1 to 50 s.
 - ★ Saturation ~ mag 6.
 - ★ S/N ~ 100 at mag 17.
- Seven filters:
 - ★ F348M + F420N + F450N.
 - ★ F515N + F861M.
 - ★ F660N + F665N.



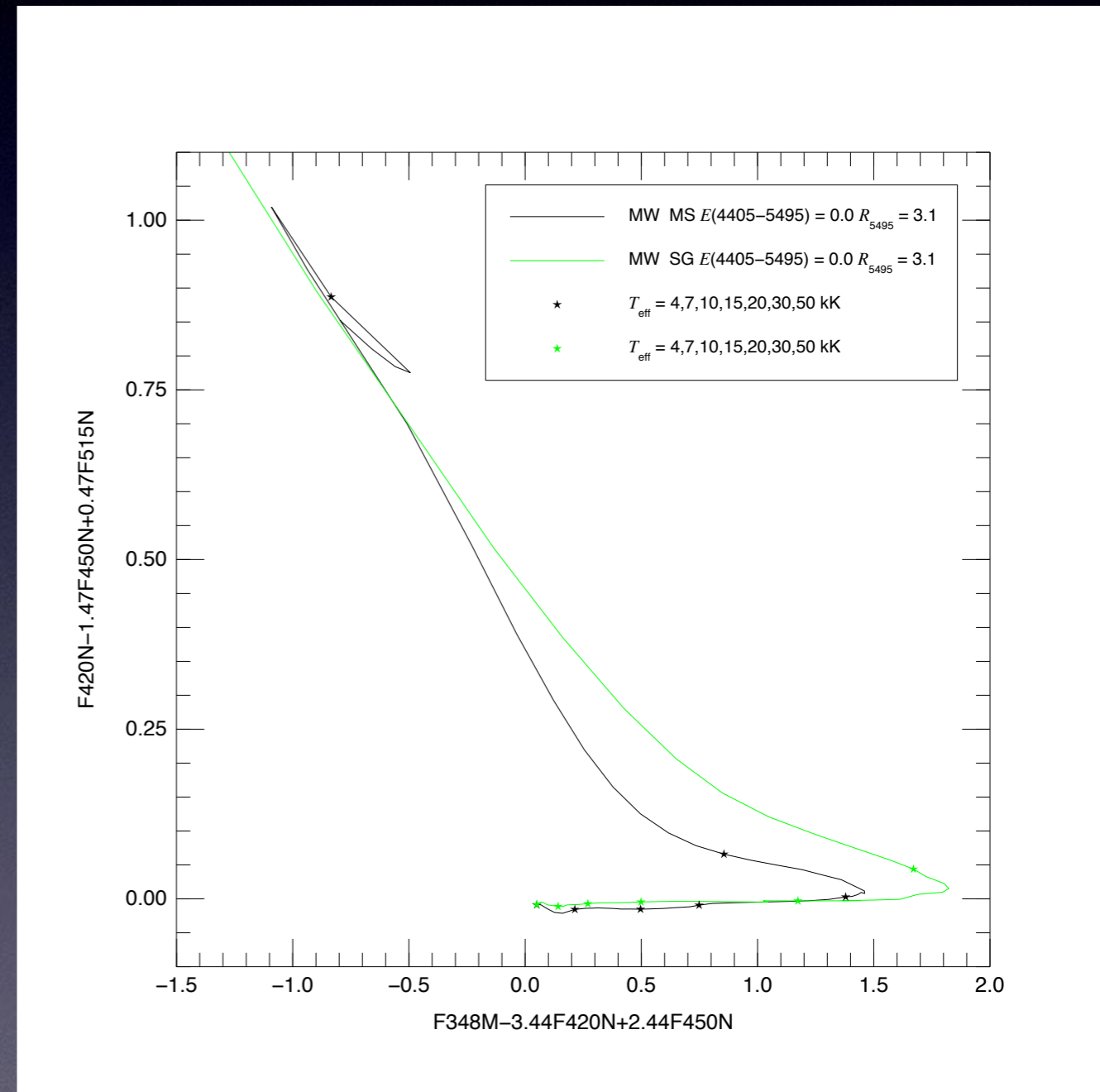
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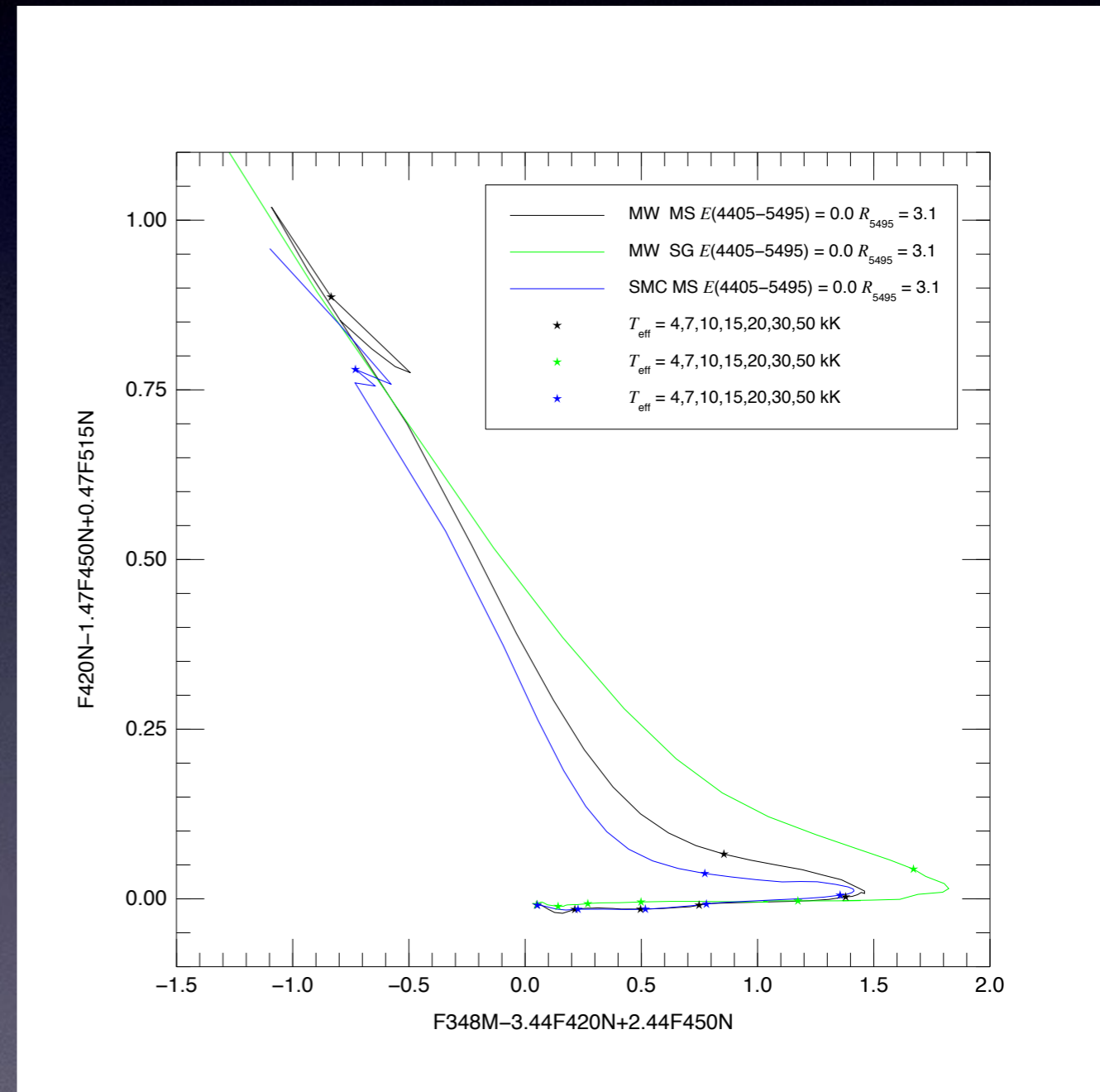
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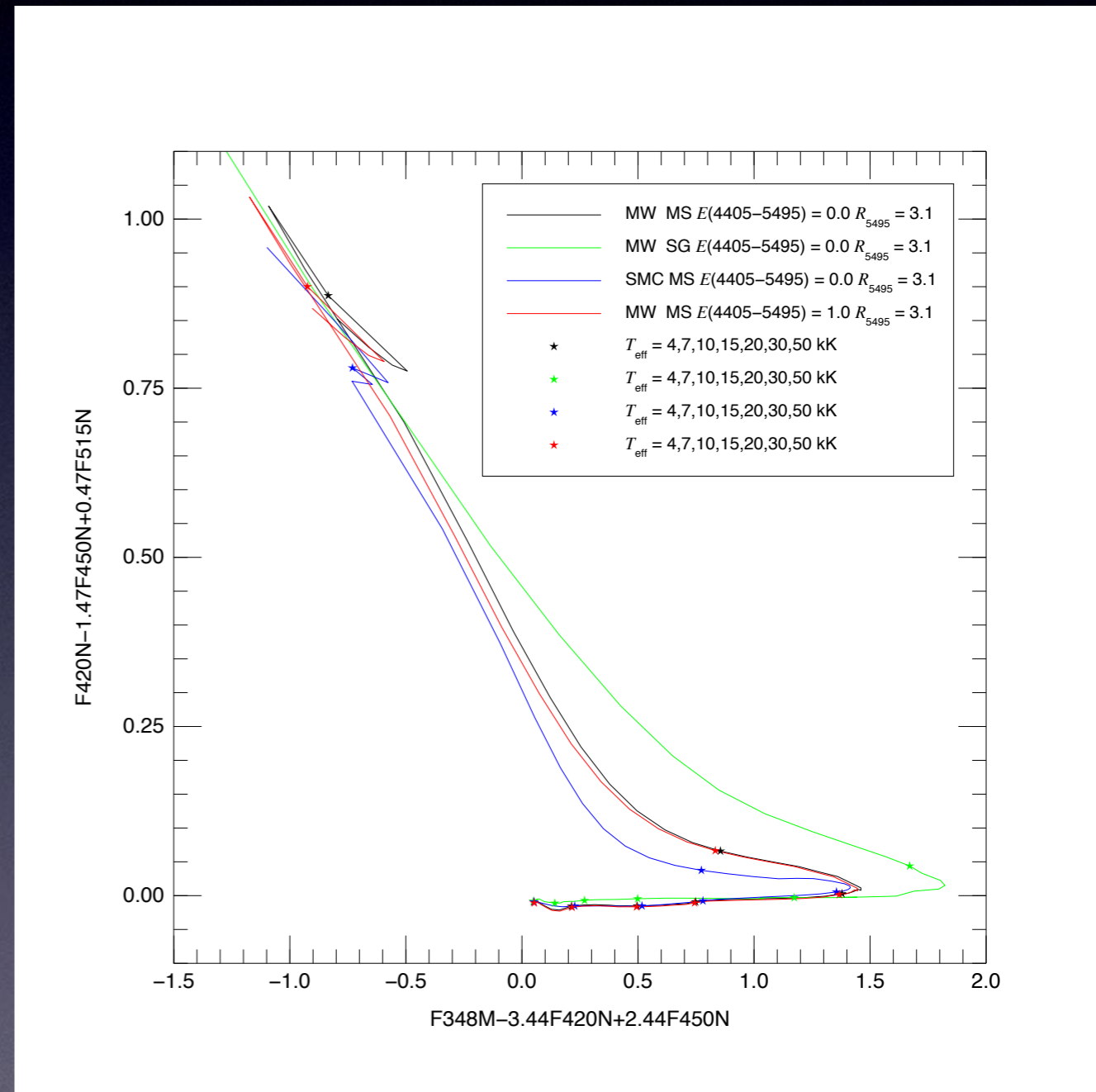
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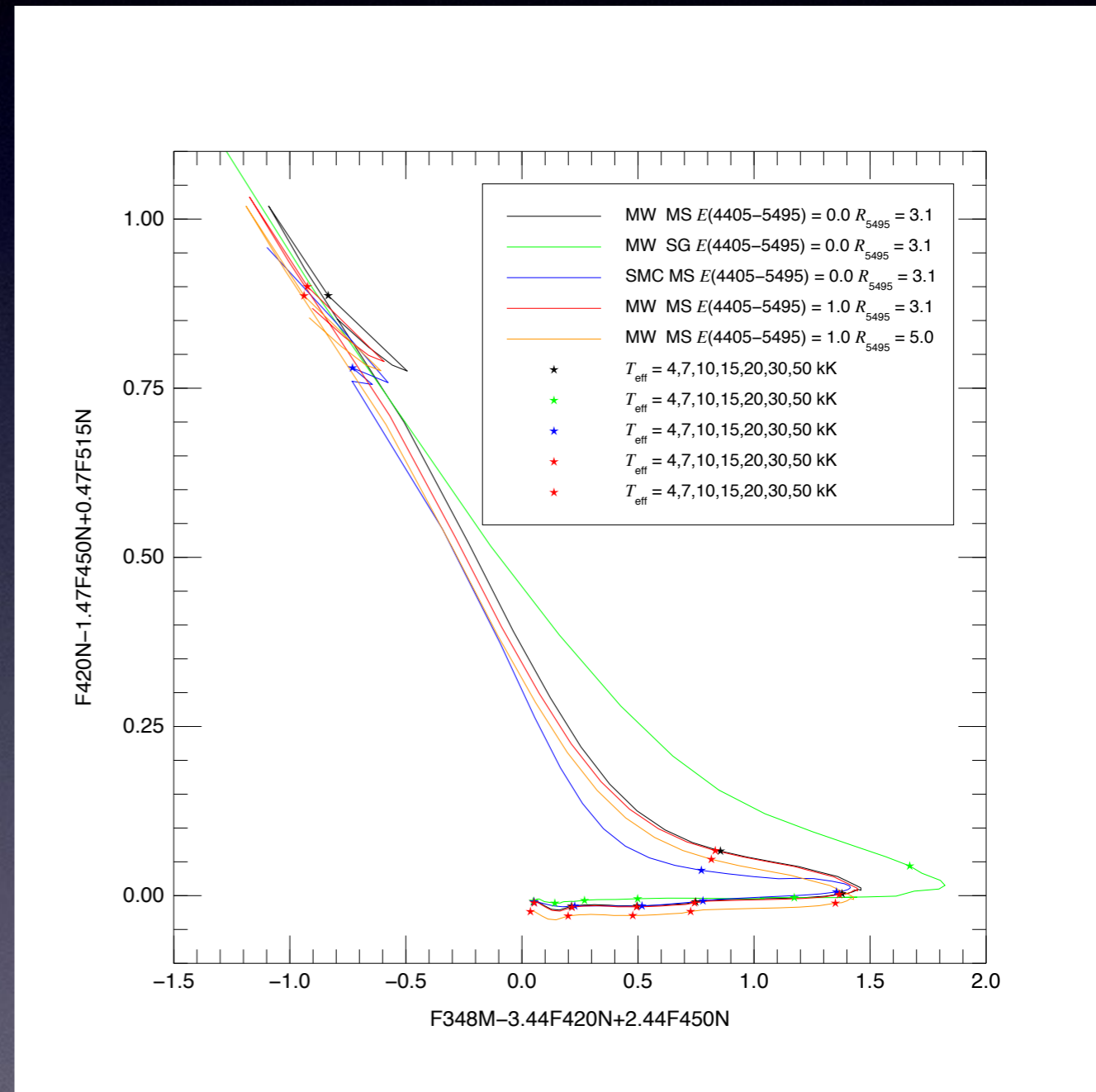
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The GALANTE survey

- Main objectives:
 - ★ Identify all OB stars and all H α excess stars in the Northern Galactic Plane down to magnitude 17.
 - ★ Estimate T_{eff} for the sample above.
 - ★ Measure $E(4405-5495)$ and R_{5495} for the OBA stars in the sample by cross-matching with 2MASS.
- Sample additional objectives:
 - ★ Detect previously unidentified high proper-motion stars.
 - ★ Obtain a homogeneous sample of Ae/Be stars.

The GALANTE survey

- Possible extensions:
 - ★ Deep surveys of interesting regions.
 - ★ The time domain.
 - ★ Beyond the Galactic Plane: Orion, M31, M33...
 - ★ Additional filters: Na I D1+D2, TiO, continuum for extinction law...
 - ★ Twin telescope in the South.