

## A highly ionized stellar bow shock in the Small Magellanic Cloud

WILLIAM J. HENNEY AND S. JANE ARTHUR<sup>1</sup>

<sup>1</sup>*Instituto de Radioastronomía y Astrofísica, Universidad Nacional Autónoma de México, Apartado Postal 3-72, 58090 Morelia, Michoacán, Mexico*

### Abstract

We report the discovery of a parsec-scale stellar bow shock associated with the O2 III(f) star Walborn 3 in the cluster NGC 346 of the Small Magellanic Cloud. Emission line images of He II and [Ar IV], etc.

*Keywords:* Atomic physics; Radiative transfer; Photodissociation regions

1. INTRODUCTION

4. CONCLUSIONS

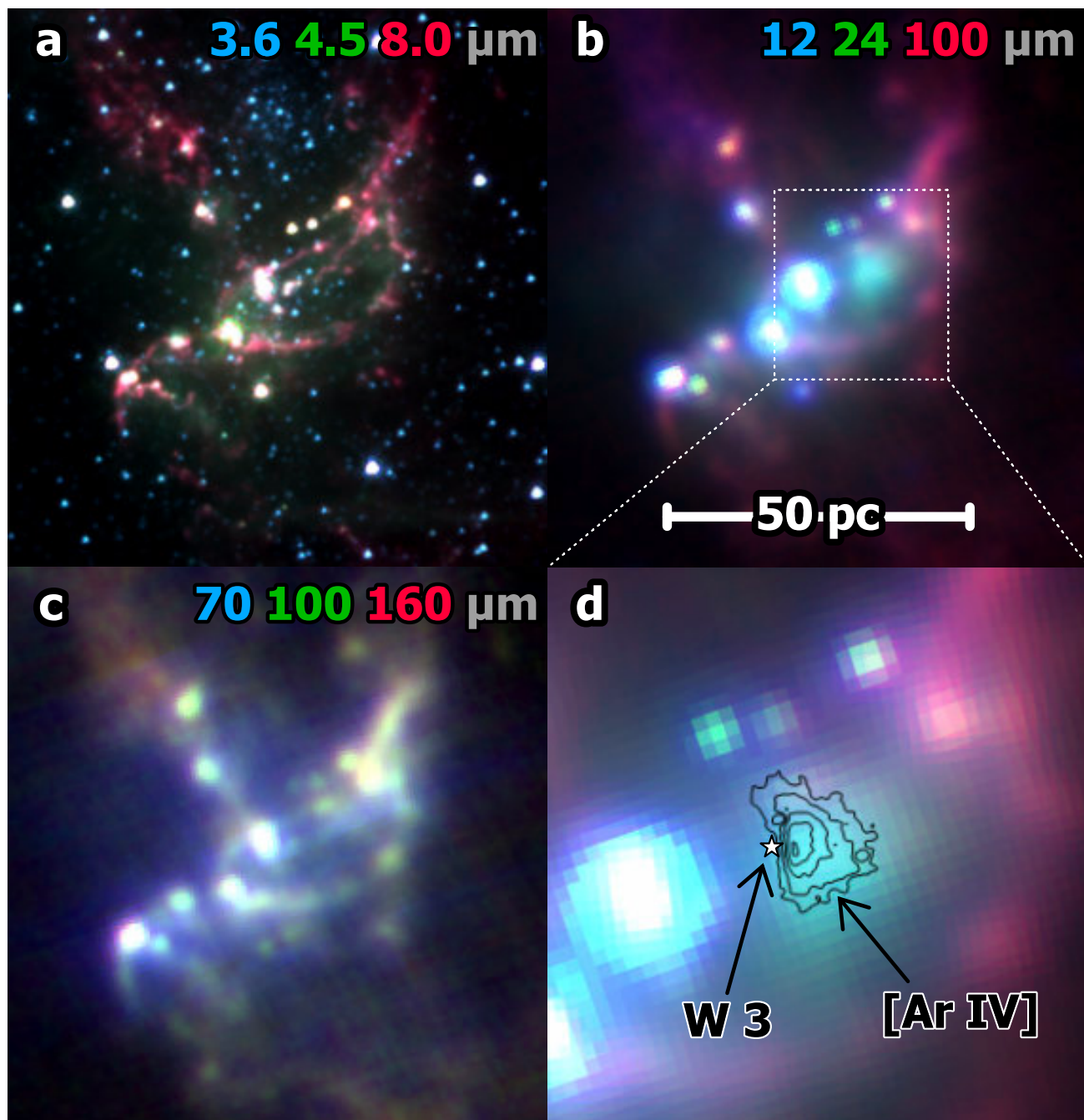
2. OBSERVATIONS

3. RESULTS

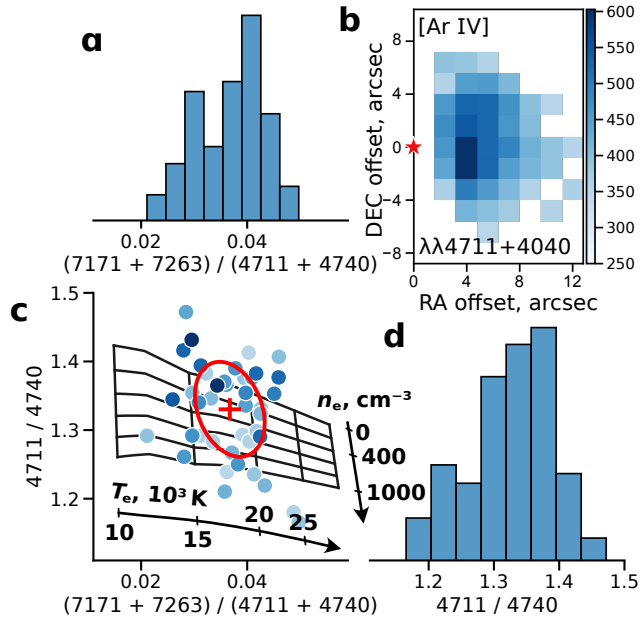
<sup>1</sup> Thank you.

*Facilities:* VLT:Yepun (MUSE)

### REFERENCES



**Figure 1.** Panoramic view of the NGC 346/N66 region at infrared wavelengths: (a) Short wavelength mid-infrared (3.6 to 8  $\mu\text{m}$ ); (b) Longer wavelength mid-infrared (12 to 100  $\mu\text{m}$ ); (c) Far-infrared (70 to 150  $\mu\text{m}$ ); (d) Zoomed view of panel c. Images are from satellite observatories as follows: *Spitzer* IRAC 3.6, 4.5, 8  $\mu\text{m}$ ); *WISE* 12  $\mu\text{m}$ ; *Spitzer* MIPS 24, 70  $\mu\text{m}$ ; *Herschel* PACS 100, 150  $\mu\text{m}$ .



**Figure 2.** Temperature and density diagnostics of the bow shock from [Ar IV] line ratios.