

**(Astro)Physics 343 Lecture # 7:  
Chile trip report; antennas**

# This week's schedule

## **On-call office hours:**

**Section A = Baker**

**Sections B, C, D, E = Lindner**

**Monday 5:00pm office hours covered by Lindner.**

**Lab # 3 due on Monday 3/21 but can be submitted by email before then (PDF preferred; use “export to PDF” option to save in this format).**

# Data for Lab # 3

Data have been sent to all of you by email. A few hints:

+ data taken in mode 4: **1218.75 kHz bandwidth, 156 channels**

+ be aware of the difference between real emission and

radio frequency interference: RFI tends to appear as

**sharp, narrow spikes**, while true HI emission from the

Milky Way tends to be **broader** in frequency  $\Leftrightarrow$  velocity

+ system temperature can vary with frequency

+ relationship between frequency, wavelength, and velocity

intervals:  $\Delta v/v = \Delta \lambda/\lambda = \Delta v/c$

# What's new from Chile?

**Atacama Large Millimeter/submillimeter Array = ALMA**

**has a 14-member international Science Advisory Committee (ASAC), which has multiple telecons and two “face-to-face” meetings every year.**

**Some of the questions the ASAC was asked to address this time:**

- + What **capabilities** should be offered to the community at the first call for “Early Science” proposals?**
- + How are plans for **reviewing** “Early Science” proposals?**
- + How is progress towards **completing** the full array?**
- + How should “**development**” of the full array be organized?**

# Joint ALMA Observatory (Santiago)

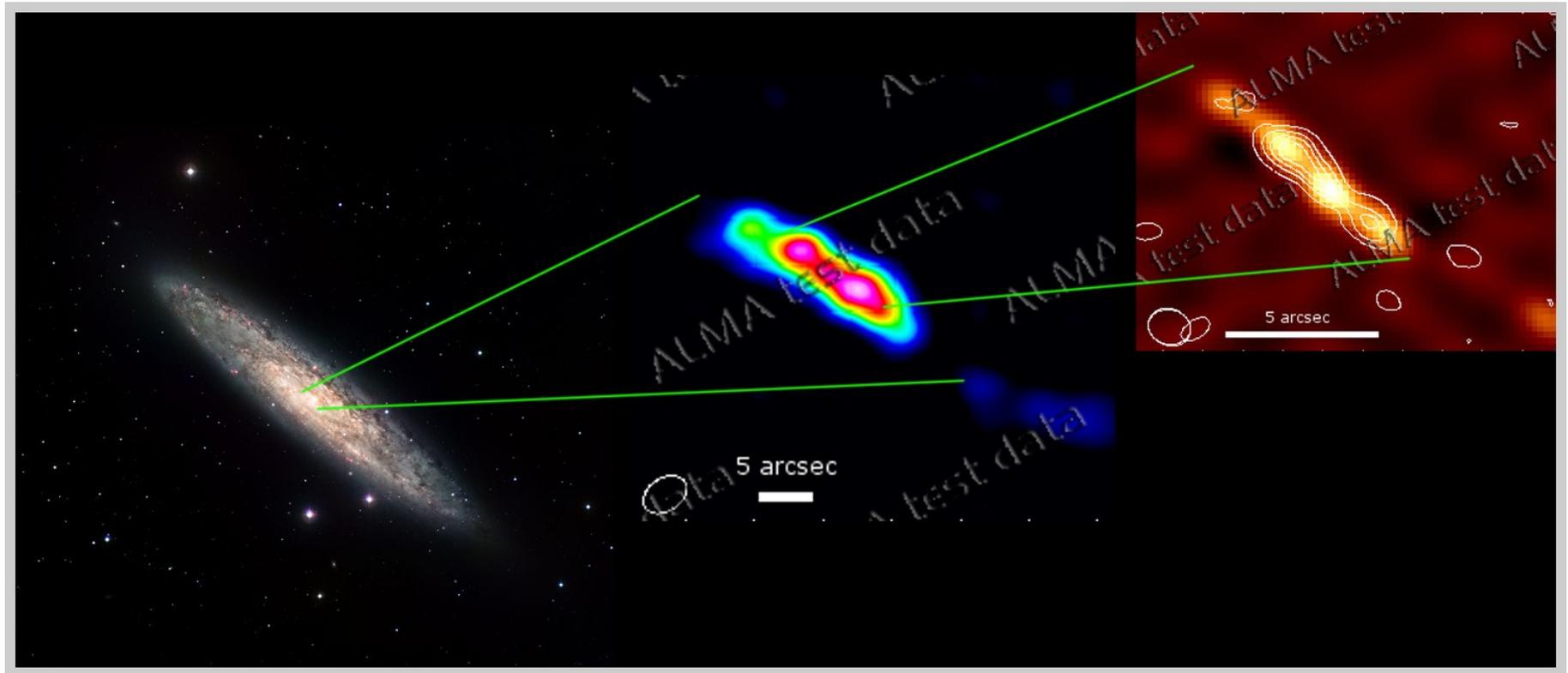


# Chilean summer vs. “Bolivian winter”



2/2/2011

# ALMA test data



**NGC253 observed at 230 GHz and 690 GHz**

# Quiz