

The word "ALFA" is written in a large, white, stylized, italicized font against a red background. The letters have a slight 3D effect with shadows. The background of the entire slide is a dark blue image of a radio telescope dish at night, with its complex metal structure and cables visible against a dark sky. In the top left corner, there is a small inset image of a building at night with lights on. In the top right corner, there are three circular logos: a blue one with a globe, a red one with a shield, and a yellow one with a sun-like pattern.

ALFA

Hickson Compact Group 59

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Hickson Compact Groups*

Systematic Search of POSS red plates

✂ Population: $N \geq 4$

🌴 N = number of galaxies within 3 mags of brightest

✂ Isolation: $\theta_N \geq \theta_G$

🌴 θ_G = Smallest circle containing centers

🌴 θ_N = Largest concentric circle without other galaxies

✂ Compactness: $\mu_G < 26.0$

🌴 $\bar{\mu}_G$ = Total magnitude/arcsec² averaged over θ_G

✂ Type: Brightest Galaxy E or S

🌴 I: brightest ≥ 1 magnitude brighter than next

🌴 II: brightest 0.5 to 1 magnitude brighter than next

🌴 III: brightest < 1 magnitude brighter than next

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☛ center at $11^{\text{h}}45^{\text{m}}51^{\text{s}} +13^{\circ}00'15''$ (B1950)

☛ Type: EIII

☛ $N_S = 4$ spiral galaxies in top 3 magnitudes

☛ $N = 5$ galaxies in top 3 magnitudes

☛ $\theta_G = 2.1'$ radius of group

☛ $m_G = 12.5$ total mag in top 3 magnitudes

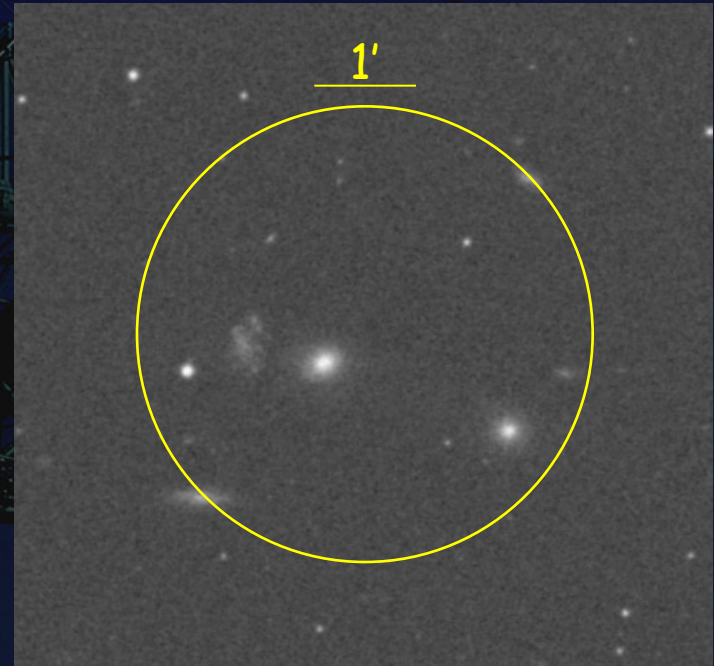
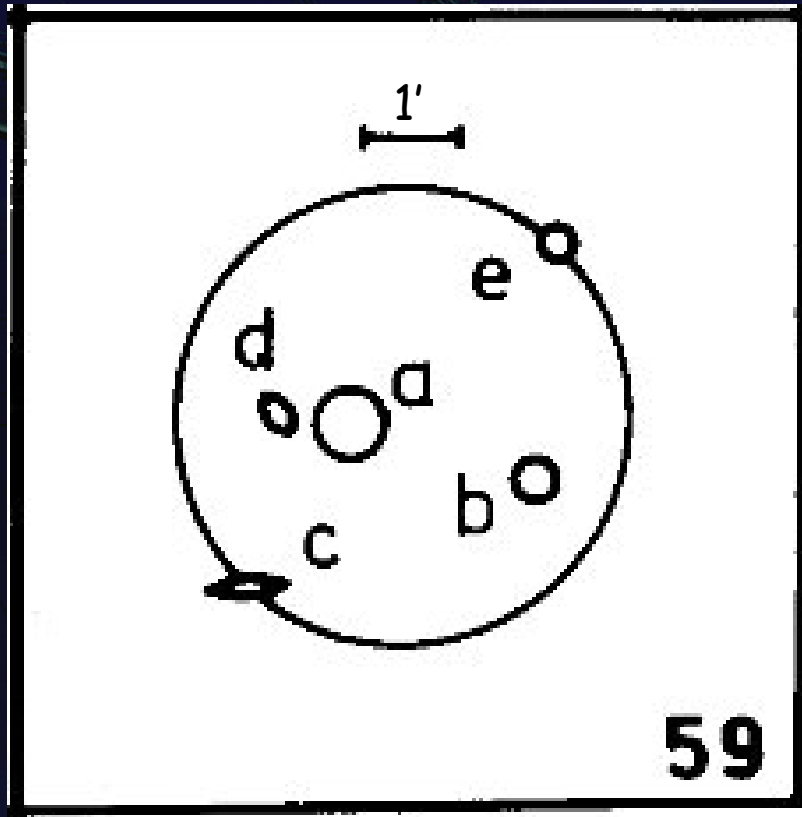
☛ $\bar{m}_a = 13.5$ magnitude of brightest galaxy

☛ $\mu_G = 22.7$ magnitudes/arcsec²

☛ also studied by Rose (1977, Ap. J., 211, 311)

Original POSS Red Plate

📡 HCG 59: $11^{\text{h}}45^{\text{m}}51^{\text{s}} +13^{\circ}00'15''$



SDSS Image

 $11^{\text{h}}48^{\text{m}}25.62^{\text{s}} +12^{\circ}43'34.6''$ (J2000)

 **DR7**

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Parameters

ra deg

dec deg

opt

Get Image 

Drawing options

Grid

Label

Photometric objects

Objects with spectra

Invert Image

Advanced options

Spectroscopic Targets

Outlines

Bounding Boxes

Fields

Masks

Plates



Selected object

ra	177.10658
dec	12.72788
type	GALAXY
u	22.45
g	20.65
r	19.81
i	19.74
z	20.78

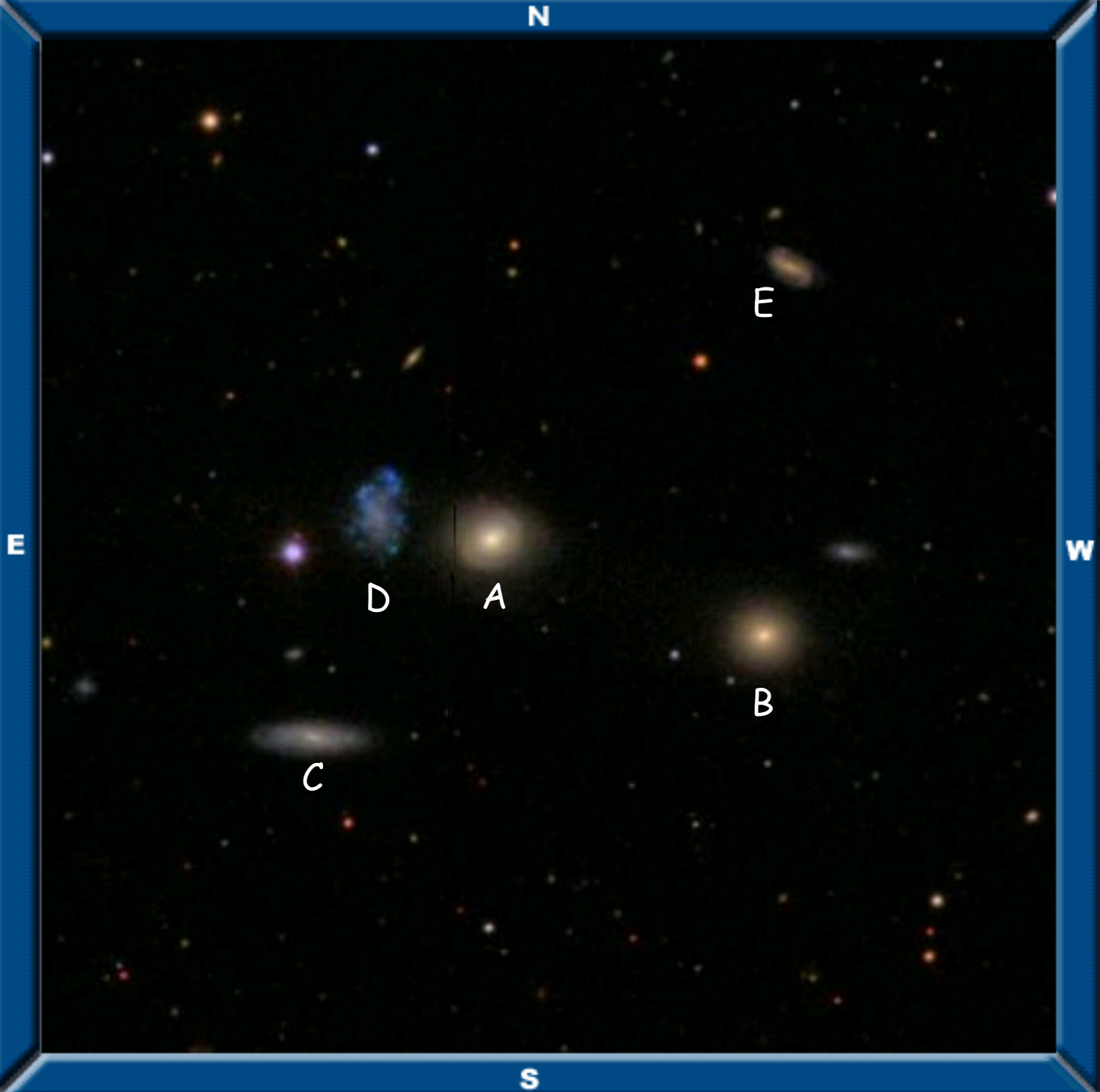


- Quick Look
- Explore
- Recenter
- Add to notes
- Show notes



Click to open Sky Maps ?

11h



N

E

E

D

A

W

B

C

S

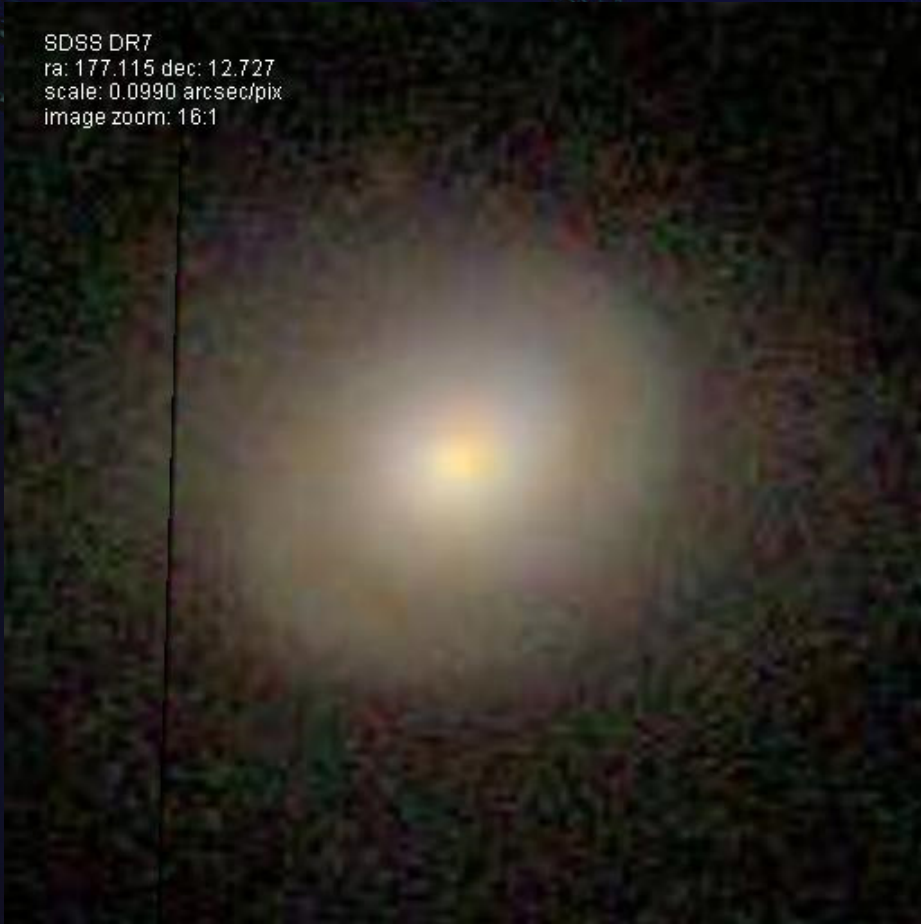
The Galaxies



α : IC 0737

11 48 30.7 +12 43 49

SDSS DR7
ra: 177.115 dec: 12.727
scale: 0.0990 arcsec/pix
image zoom: 16:1



The Galaxies

 b: IC 0736 11 48 20.1 +12 42 59

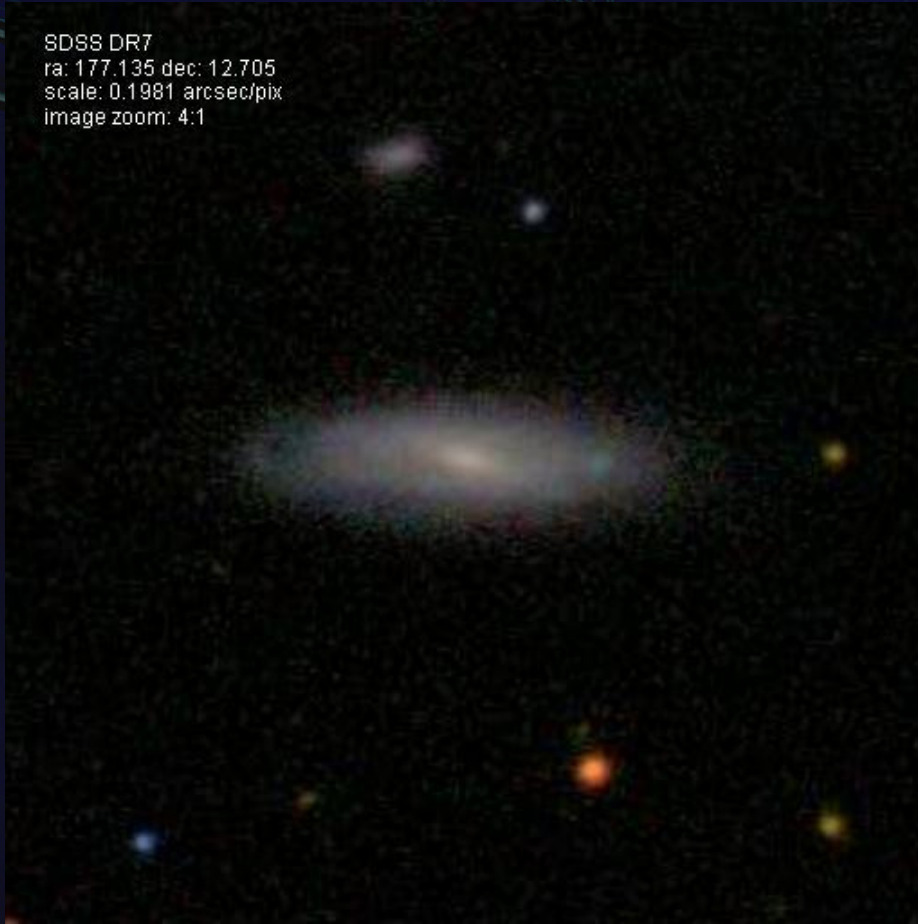
SDSS DR7
ra: 177.084 dec: 12.716
scale: 0.0990 arcsec/pix
image zoom: 16:1



The Galaxies

 c: KUG 1145+129 11 48 32.4 +12 42 19

SDSS DR7
ra: 177.135 dec: 12.705
scale: 0.1981 arcsec/pix
image zoom: 4:1



The Galaxies

 d: KUG 1145+130 11 48 30.6 +12 43 47

SDSS DR7
ra: 177.128 dec: 12.729
scale: 0.0990 arcsec/pix
image zoom: 16:1



The Galaxies

 e: 2MASX

11 48 19.4 +12 45 27

SDSS DR7
ra: 177.081 dec: 12.757
scale: 0.0990 arcsec/pix
image zoom: 16:1



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Observations

 Burns et al 1987: 1145.8+1300

 $v = 10036$

 Zwicky Galaxies (B1950)

 a: 1145.9+1300 14.7 IC737 double system

 b: 1145.8+1300 15.3 IC736 $v = 4007a$

 c: 1146.0+1258 15.3

 e: 1145.7+1259 15.3 $v = 3896a$

