

UT ASTRONOMY  
BROWN BAG LUNCH  
FALL 2008

YOUR HUMBLE ORGANIZER: JD SMITH

# THE DETAILS

- **EVERY TUESDAY (EXCEPT UNIVERSITY HOLIDAYS), AT 12:30 IN MH 4009.**
- **DIFFERENT FORMAT THIS SEMESTER ONLY:  
TWO 30M TALKS ABOUT OUR OWN RESEARCH.**

# THE DETAILS

## ■ WHY:

- **1ST YEARS: MEET THE FACULTY AND OTHER STUDENTS, LEARN THEIR RESEARCH, AND HOW TO GIVE TALKS IN THE FIELD.**
- **2ND-3RD YEARS: STRENGTHEN THESIS PLAN, PREPARE FOR CANDIDACY EXAM.**
- **NTH YEARS: NON-THREATENING DEFENSE PRACTICE. SOLICIT FEEDBACK.**
- **EVERYONE: GET UP TO SPEED ON EVERYONE ELSE'S RESEARCH. NEW COLLABORATIONS.**

# THE DETAILS

- **WHAT:**
  - **30M EACH, TWO TALKS PER SLOT.**
  - **IDEALLY ONE STUDENT, ONE PROFESSOR/  
POSTDOC.**
  - **YOUR RESEARCH, YOUR PLANNED RESEARCH, A  
WILD IDEA FOR NEW RESEARCH.**
  - **EMPHASIS ON WHAT YOU ARE DOING AND/OR  
WILL BE DOING, NOT WHAT YOU HAVE DONE.**

# GIVING GOOD TALKS

ONE ASTRONOMER'S HIGHLY OPINIONATED POINT OF VIEW

- WHAT MAKES A TALK GOOD?
- LIGHT, BUT NOT TOO LIGHT.
- DETAILED, BUT NOT TOO DETAILED.
- **CONVEYS THE PERSONAL INTEREST AND EXCITEMENT OF THE SPEAKER IN THEIR SUBJECT.**

# WORDINESS IS THE ENEMY

■ WHICH IS EASIER TO FOLLOW?

■ A SUCCINCT SUMMARY BULLET IN LARGE FONT.

■ A LONG LIST OF WORDS IN A VERY SMALL FONT, WHICH PUTS ON THE PAGE AND BEFORE THE EYES OF THE AUDIENCE EVERY SINGLE LAST UTTERANCE WHICH WILL FALL FROM YOUR LIPS, NOT OMITTING ANY PARTICULAR DETAILS SO AS TO AFFORD THE SPEAKER THE POSSIBILITY NOT TO FORGET THE MENTION OF SAID DETAILS, EVEN IF SUCH A DENSITY OF INFORMATION ON THE WRITTEN AND PROJECTED PAGE CAUSES THE WORDS THEMSELVES TO BE LOST IN A SEA OF EYE-BLEARING, NEVER-ENDING VERBIAGE, THE LIKES OF WHICH PERHAPS EVEN THAT MASTER OF THE WELL-CRAFTED RUN-ON SENTENCE WILLIAM FAULKNER WOULD FIND HOPELESSLY OFF-PUTTING, IN THE UNFORESEEN AND UNLIKELY CHANCE THAT HIS EVER-DEADENING GAZE AND DROOPING EYELIDS WOULD REMAIN OPEN EVEN THE TINIEST AMOUNT BEFORE REACHING THE END OF SUCH A FRIGHTENING AND OVER-WROUGHT PASSAGE, IN THIS, THE HALL OF MCMASTER, ON THE FLOOR NUMBERING FOUR, HERE IN THE NORTHWESTERN REACHES OF THIS, OUR GREAT STATE OF OHIO, IN THESE, OUR UNITED STATES OF AMERICA.

# WORDINESS IS THE ENEMY

- ...BUT ALSO A USEFUL CRUTCH.
- WORKAROUNDS:
  - OMIT THE CRUTCH. PRACTICE YOUR TALK UNTIL CONFIDENT.
  - REALIZE THAT SKIPPING SMALL DETAILS IS UNIMPORTANT.
  - USE INDEX CARDS, OR A PRINTED SHEET.
  - USE THE “PRESENTER NOTES”

# TABLES: ALMOST ALWAYS USELESS

**Table 4.** Results of stacking BzK galaxies into the SHADES 850- $\mu\text{m}$  SXDF map.

Sample	$K_{\text{abs}}$ (Vega)	$\langle z \rangle$	N	$\bar{S}_{850\mu\text{m}}$ (mJy)	$\text{SFR}_{35\text{K}}^{\text{sub}}$ ( $M_{\odot} \text{ yr}^{-1}$ )	$\text{SFR}_{30\text{K}}^{\text{sub}}$ ( $M_{\odot} \text{ yr}^{-1}$ )	$\text{SFR}_{\text{C}}^{\text{rad}}$ ( $M_{\odot} \text{ yr}^{-1}$ )	$\text{SFR}_{\text{B}}^{\text{rad}}$ ( $M_{\odot} \text{ yr}^{-1}$ )
sBzK	all	1.56	1,421	$0.53 \pm 0.06$	$156.3 \pm 16.6$	$80.2 \pm 8.9$	$153.6 \pm 6.7$	$70.6 \pm 3.1$
	-(21.5 – 23.5)	1.41	187	$0.17 \pm 0.16$	< 128	< 65	$30 \pm 12$	$14 \pm 6$
	-(23.5 – 24.5)	1.54	509	$0.17 \pm 0.10$	< 83	< 42	$92 \pm 10$	$42 \pm 5$
	-(24.5 – 25.5)	1.63	442	$0.76 \pm 0.10$	$230 \pm 31$	$119 \pm 16$	$226 \pm 11$	$104 \pm 5$
	-(25.5 – 26.6)	1.74	212	$1.19 \pm 0.15$	$380 \pm 46$	$197 \pm 24$	$485 \pm 27$	$223 \pm 12$
	-(26.5 – 27.5)	2.16	33	$1.60 \pm 0.37$	$618 \pm 141$	$329 \pm 75$	$1267 \pm 175$	$583 \pm 80$
pBzK	all	1.53	147	$0.22 \pm 0.18$	< 158	< 81	$131 \pm 19$	$61 \pm 9$
pBzK $z < 1.4$	all	1.28	46	$0.89 \pm 0.34$	$219 \pm 84$	$111 \pm 42$	$158 \pm 19$	$73 \pm 9$
pBzK $z > 1.4$	all	1.66	101	$-0.05 \pm 0.22$	< 200	< 103	$105 \pm 31$	$48 \pm 14$

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# PICTURE $\equiv$ $10^3$ WORDS

- THERE IS A MERGING CLUSTER PAIR CALLED THE BULLET CLUSTER, WHICH, WHEN IMAGED IN X-RAYS, AND COMPARING THOSE X-RAY EMISSIONS TO A MAP OF THE GRAVITATING MASS, OBTAINED BY WEAK LENSING MAP INVERSION, CLEARLY SHOWS AN OFFSET BETWEEN THE X-RAYS, ARRANGED IN SYMMETRIC “CONES” OF EMISSION (WHICH YOU CAN IMAGINE ARE RED), AND THE DOMINANT MASS COMPONENTS (WHICH YOU CAN IMAGINE ARE BLUE).
- THOSE MASS COMPONENTS ARE DOMINATED BY NON-INTERACTING MATERIAL, NOT HOT GAS.
- DARK MATTER!

PICTURE  $\equiv 10^3$  WORDS

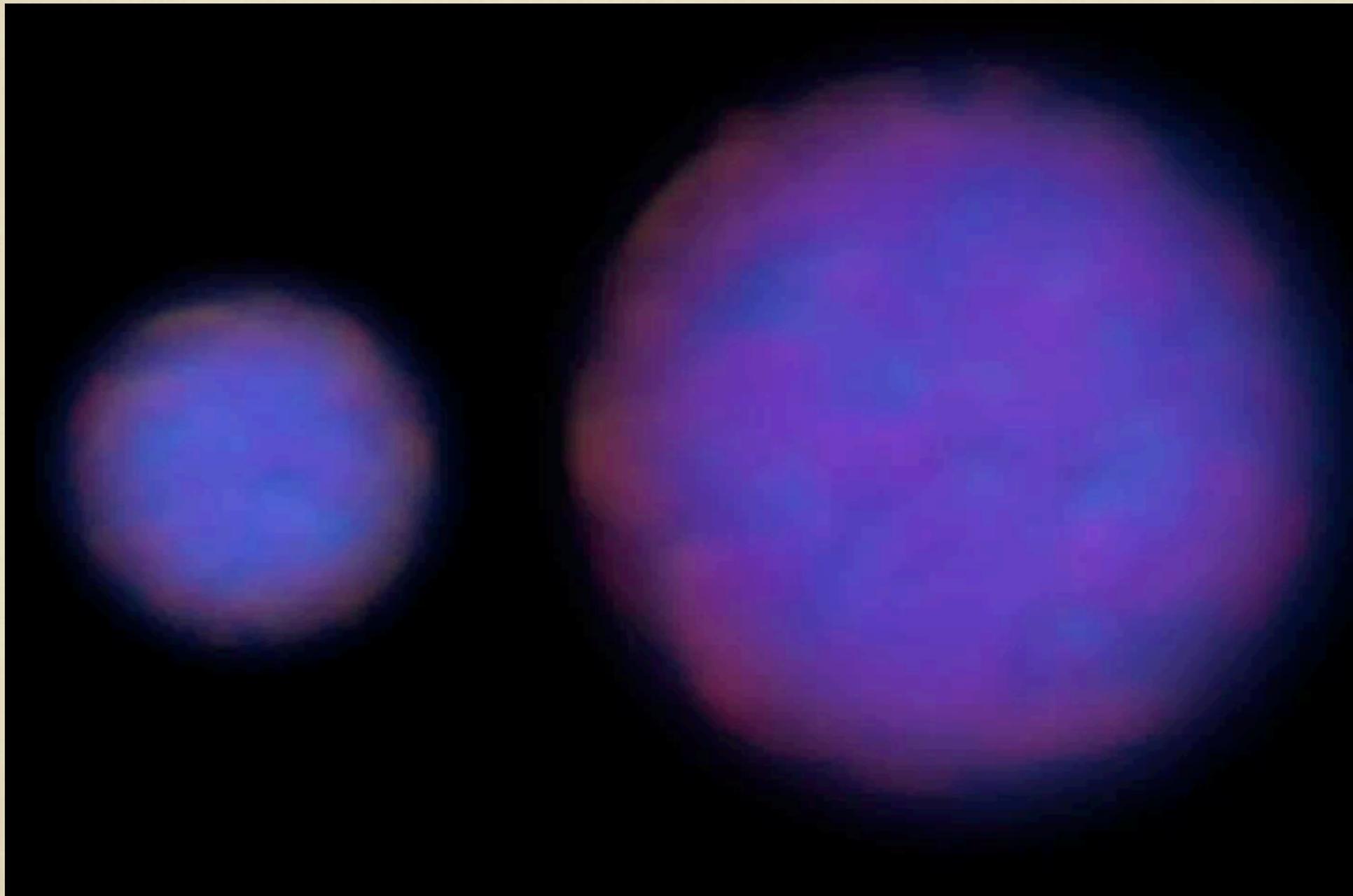


CLOWE ET AL., 2006

# MOVIE $\equiv$ $10^5$ WORDS

- MODELS OF CLUSTER COLLISION CONSISTING OF HOT GAS AND DARK MATTER VERY CLOSELY MATCH THE BULLET-SHAPED CLOUD OF GAS, WITH THE NON-INTERACTING DARK MATTER DISTRIBUTION REMAINING INTACT, AS IT DOES NOT INTERACT DIRECTLY WITH ITSELF OR THE GAS EXCEPT THROUGH GRAVITY.

MOVIE  $\equiv 10^5$  WORDS



NASA/CXC/M. WEISS

# OTHER TIPS

- SET UP IN ADVANCE TO REDUCE ANXIETIES.
- GO THROUGH YOUR TALK AT LEAST ONCE.
- USE TASTEFUL TRANSITIONS (IF ANY).
- SPEAK TO THE AUDIENCE, NOT THE SCREEN. MAKE EYE CONTACT.
- IF YOU NEED TO MOVE, MOVE.
- PEOPLE WHO GIVE CONFIDENT TALKS ARE FAKING IT.
- USE A LASER OR OTHER POINTER.
- GIVE EXAMPLES AND HELPFUL ASIDES.

# ON QUESTIONS

- LET THE QUESTIONER FINISH BEFORE ANSWERING.
- YOU PROBABLY KNOW MORE THAN THE QUESTIONER ABOUT THE TOPIC.
- IF YOU DON'T KNOW THE ANSWER, DON'T BLUFF.
- REPEAT THE QUESTION.

# A FEW MORE TIPS

- BE HONEST ABOUT DIFFICULTIES OR PROBLEMS IN THE WORK.
- CONSIDER YOU LISTENERS AS COHORTS AND PARTICIPANTS IN A GUIDED TOUR, NOT ADVERSARIES AND ADJUDICATORS.
- A GENERAL OUTLINE IS BETTER THAN FULL COVERAGE: MOST OF OUR BRAINS ARE TOO FULL TO ABSORB MORE.
- ATTRIBUTE ALL MATERIAL, BUT DON'T BELABOR IT.
- NEVER (**EVER**) GO OVER YOUR TIME LIMIT.
- CONVEY WHAT EXCITES YOU ABOUT THE MATERIAL.

# FINAL THOUGHTS

- IT USUALLY TAKES MORE THAN THREE WEEKS TO PREPARE A GOOD IMPROMPTU SPEECH.  
– SAMUEL CLEMENS
- MANY HAVE BEEN THE WISE SPEECHES OF FOOLS, THOUGH NOT SO MANY AS THE FOOLISH SPEECHES OF WISE MEN.  
– THOMAS FULLER
- PUBLIC SPEAKING IS THE ART OF DILUTING A TWO-MINUTE IDEA WITH A TWO-HOUR VOCABULARY.  
–EVAN ESSAR
- PUBLIC SPEAKING IS VERY EASY.  
– DAN QUAYLE

# LIVE SCHEDULING

AUG 26	<b>ORGANIZATIONAL</b>	OCT 21	<b>FALL BREAK</b>
SEP 2	ADAM R., JD	OCT 28	GREG, UMA
SEP 9	SARA, BLAGOY	NOV 4	ADAM L., BRAD
SEP 16	DAVID N., JOSH T.	NOV 11	<b>VETERAN'S DAY</b>
SEP 23	KYLE, KAREN	NOV 18	CHARLES, TOM
SEP 30	ERICA, LAWRENCE	NOV 25	JIMMY, STEVE
OCT 7	ERIN, RUPALI	DEC 2	STEPHANIE, ADOLPH
OCT 14	DAVID C., JON	DEC 9	CHIP, WILL F.