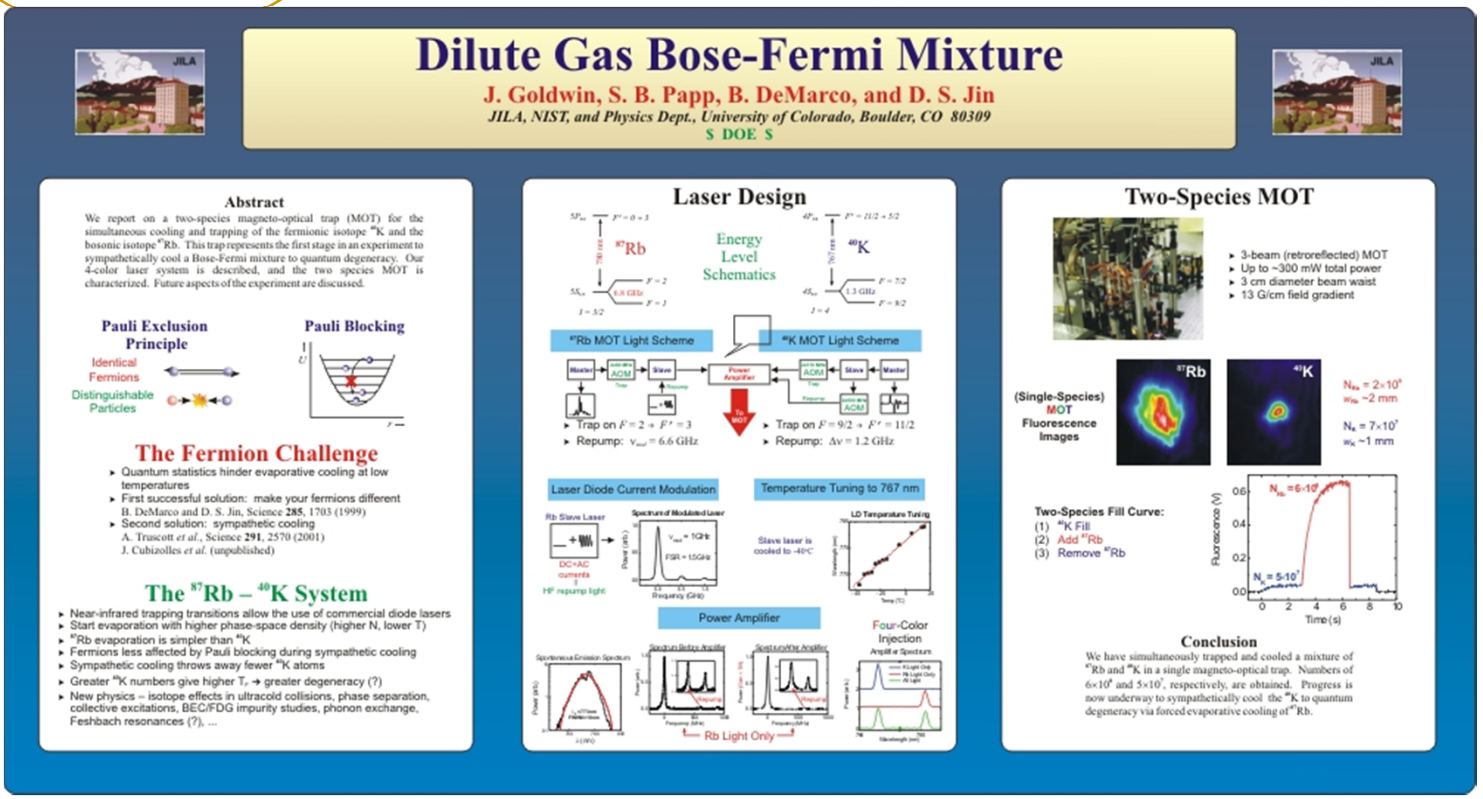
Tips for Making Scientific Posters



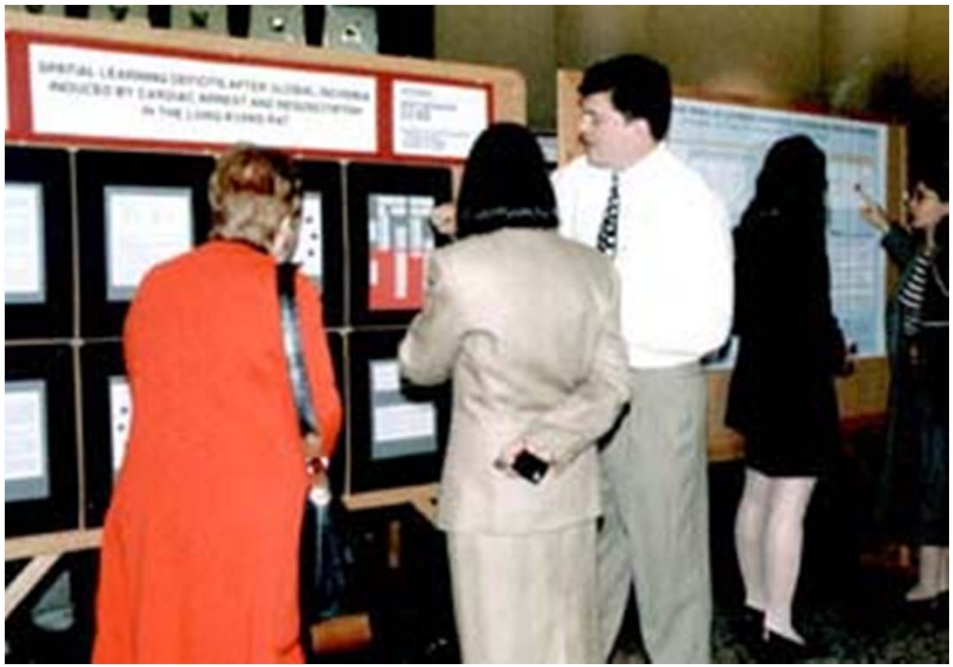
Courtesy B. DeMarco

Source: The Craft of Scientific Presentations, Michael Alley

See also http://www.writing.eng.vt.edu/posters.html

Why a scientific poster?

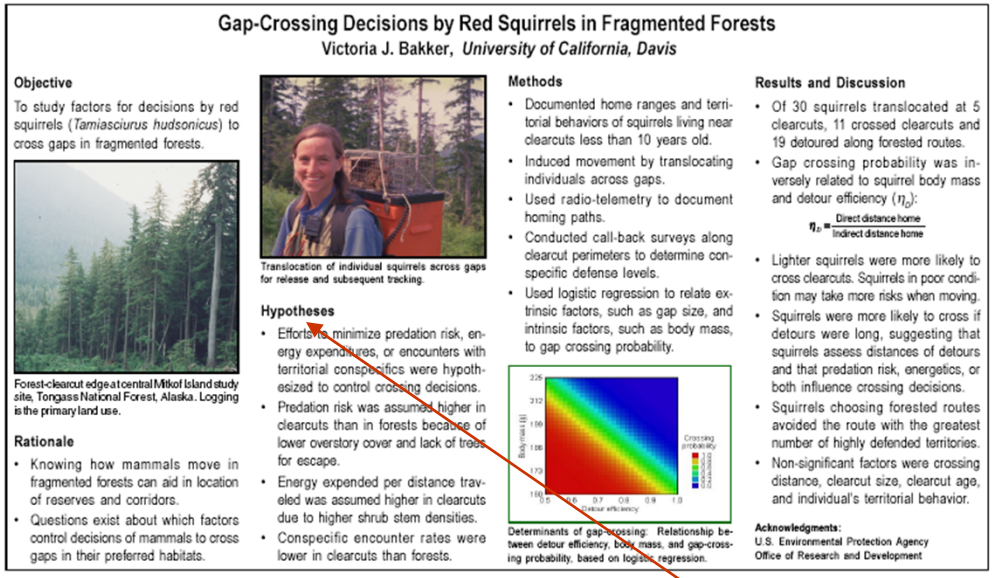
One of the most common methods of disseminating scientific information at conferences!



Allows one to convey more details than in a talk

Provides an opportunity for more Q&A exchange between author and reader than a talk or paper

Key features of a poster



Gap-Crossing Decisions by Red Squirrels in Fragmented Forests

Victoria J. Bakker, *University of California, Davis*

Objective

To study factors for decisions by red squirrels (*Tamiasciurus hudsonicus*) to cross gaps in fragmented forests.

Forest-clearcut edge at central Mitkof Island study site, Tongass National Forest, Alaska. Logging is the primary land use.

Rationale

- Knowing how mammals move in fragmented forests can aid in location of reserves and corridors.
- Questions exist about which factors control decisions of mammals to cross gaps in their preferred habitats.

Translocation of individual squirrels across gaps for release and subsequent tracking.

Hypotheses

- Efforts to minimize predation risk, energy expenditures, or encounters with territorial conspecifics were hypothesized to control crossing decisions.
- Predation risk was assumed higher in clearcuts than in forests because of lower overstory cover and lack of trees for escape.
- Energy expended per distance traveled was assumed higher in clearcuts due to higher shrub stem densities.
- Conspecific encounter rates were lower in clearcuts than forests.

Methods

- Documented home ranges and territorial behaviors of squirrels living near clearcuts less than 10 years old.
- Induced movement by translocating individuals across gaps.
- Used radio-telemetry to document homing paths.
- Conducted call-back surveys along clearcut perimeters to determine conspecific defense levels.
- Used logistic regression to relate extrinsic factors, such as gap size, and intrinsic factors, such as body mass, to gap crossing probability.

Determinants of gap-crossing: Relationship between detour efficiency, body mass, and gap-crossing probability, based on logistic regression.

Results and Discussion

- Of 30 squirrels translocated at 5 clearcuts, 11 crossed clearcuts and 19 detoured along forested routes.
- Gap crossing probability was inversely related to squirrel body mass and detour efficiency (η_D):

$$\eta_D = \frac{\text{Direct distance home}}{\text{Indirect distance home}}$$

- Lighter squirrels were more likely to cross clearcuts. Squirrels in poor condition may take more risks when moving.
- Squirrels were more likely to cross if detours were long, suggesting that squirrels assess distances of detours and that predation risk, energetics, or both influence crossing decisions.
- Squirrels choosing forested routes avoided the route with the greatest number of highly defended territories.
- Non-significant factors were crossing distance, clearcut size, clearcut age, and individual's territorial behavior.

Acknowledgments:
U.S. Environmental Protection Agency
Office of Research and Development

Good!

Key features of a scientific poster:

Must attract an audience:

- Prominent title
- Attractive figures (lots)
- Clean, open layout

Must quickly orient the reader to the key points

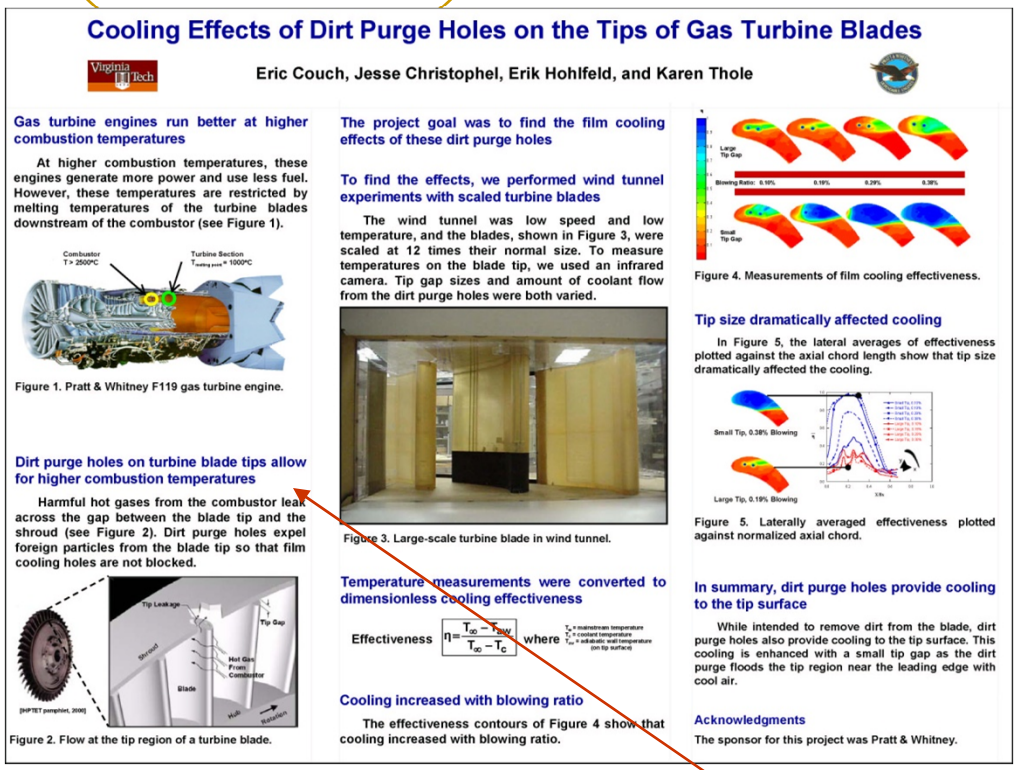
Should be logically arranged

Should contain all elements of a good research paper:

- Motivation/Background
- Procedures/Experimental
- Results/Analysis
- Conclusions
- Acknowledgments

Should have clearly labeled sections

Key features of a poster



Cooling Effects of Dirt Purge Holes on the Tips of Gas Turbine Blades

Eric Couch, Jesse Christophel, Erik Hohlfeld, and Karen Thole

Gas turbine engines run better at higher combustion temperatures

At higher combustion temperatures, these engines generate more power and use less fuel. However, these temperatures are restricted by melting temperatures of the turbine blades downstream of the combustor (see Figure 1).

Figure 1. Pratt & Whitney F119 gas turbine engine.

Dirt purge holes on turbine blade tips allow for higher combustion temperatures

Harmful hot gases from the combustor leak across the gap between the blade tip and the shroud (see Figure 2). Dirt purge holes expel foreign particles from the blade tip so that film cooling holes are not blocked.

Figure 2. Flow at the tip region of a turbine blade.

The project goal was to find the film cooling effects of these dirt purge holes

To find the effects, we performed wind tunnel experiments with scaled turbine blades

The wind tunnel was low speed and low temperature, and the blades, shown in Figure 3, were scaled at 12 times their normal size. To measure temperatures on the blade tip, we used an infrared camera. Tip gap sizes and amount of coolant flow from the dirt purge holes were both varied.

Figure 3. Large-scale turbine blade in wind tunnel.

Temperature measurements were converted to dimensionless cooling effectiveness

Effectiveness $\eta = \frac{T_\infty - T_{aw}}{T_\infty - T_c}$ where

Cooling increased with blowing ratio

The effectiveness contours of Figure 4 show that cooling increased with blowing ratio.

Figure 4. Measurements of film cooling effectiveness.

Tip size dramatically affected cooling

In Figure 5, the lateral averages of effectiveness plotted against the axial chord length show that tip size dramatically affected the cooling.

Figure 5. Laterally averaged effectiveness plotted against normalized axial chord.

In summary, dirt purge holes provide cooling to the tip surface

While intended to remove dirt from the blade, dirt purge holes also provide cooling to the tip surface. This cooling is enhanced with a small tip gap as the dirt purge floods the tip region near the leading edge with cool air.

Acknowledgments

The sponsor for this project was Pratt & Whitney.

Not so good!

Key features of a scientific poster:

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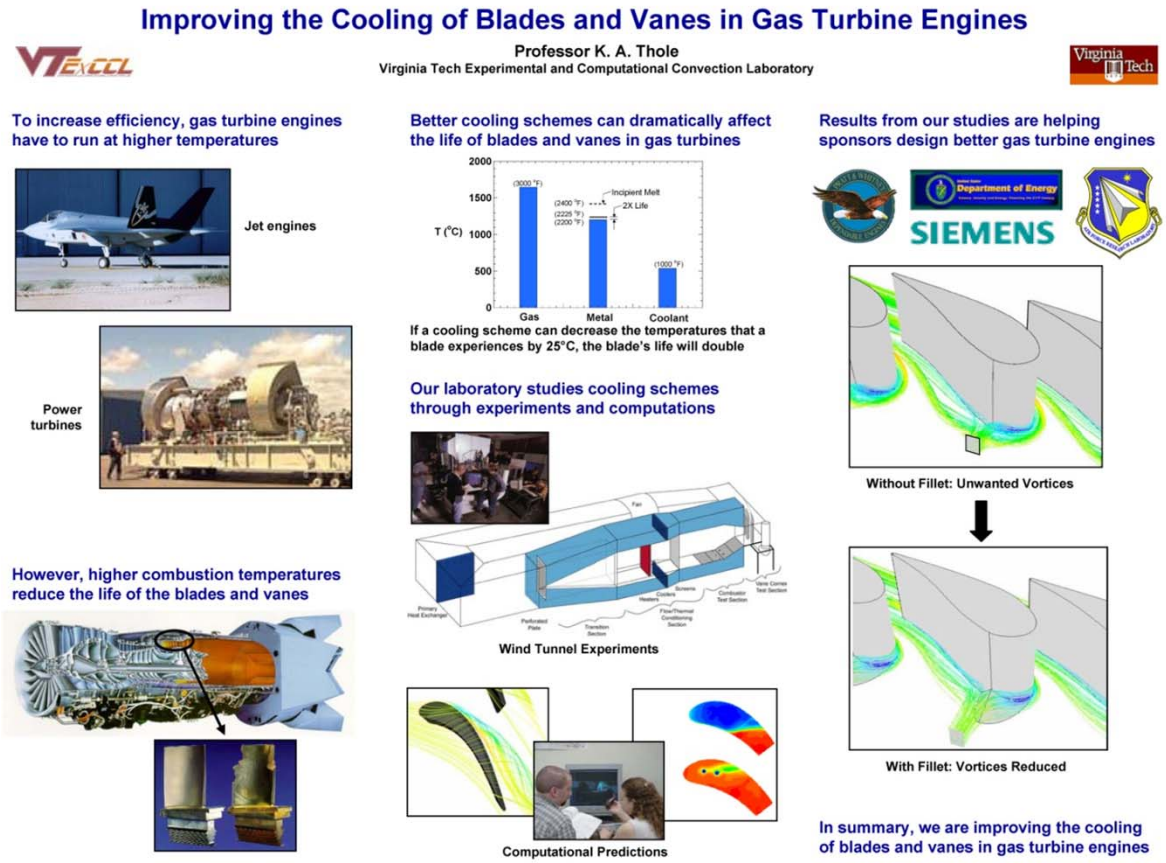
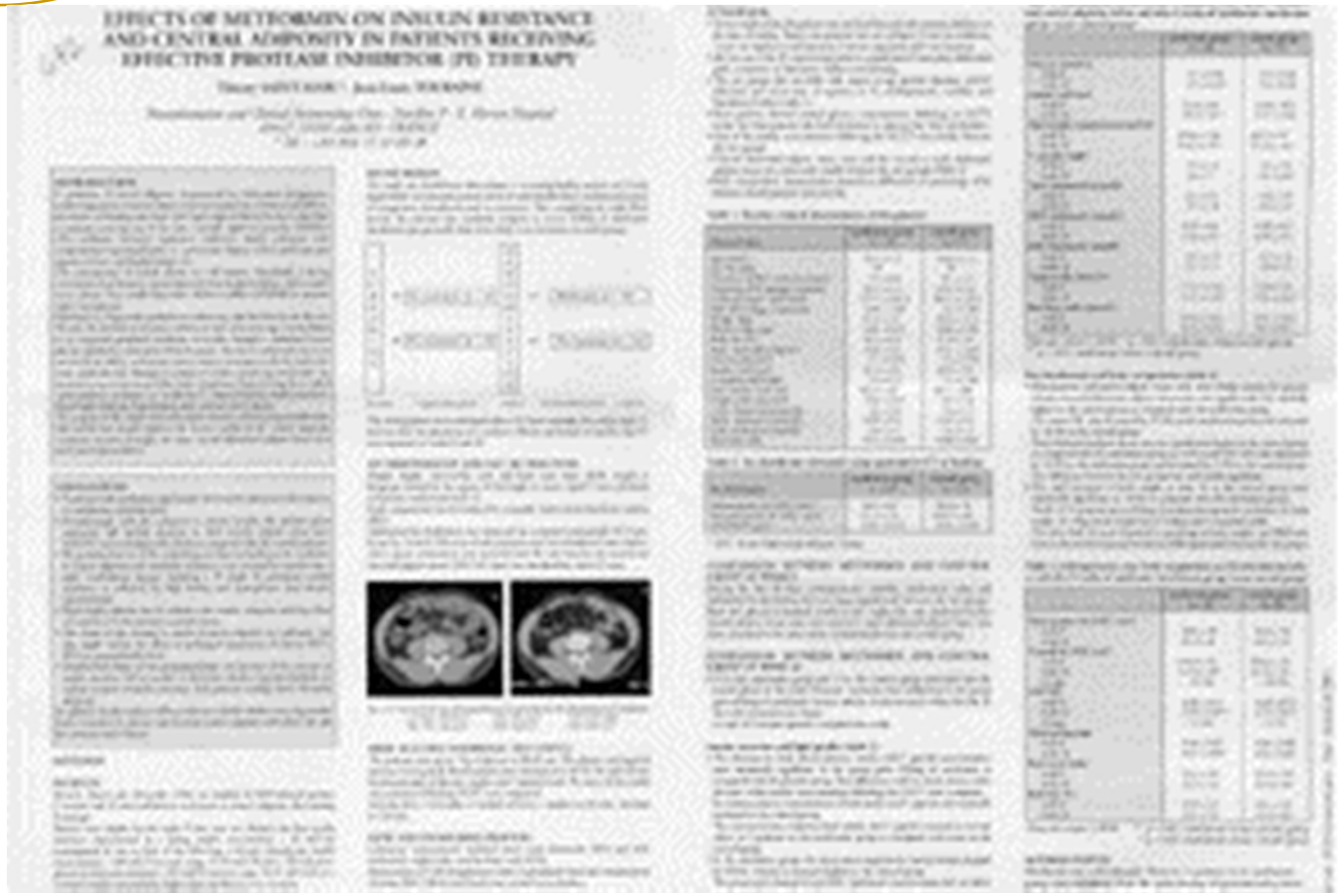
Posters should have more description than a talk slide, less description than a paper

Too little description:



Posters should have more description than a talk slide, less description than a paper

(Way) too much description:

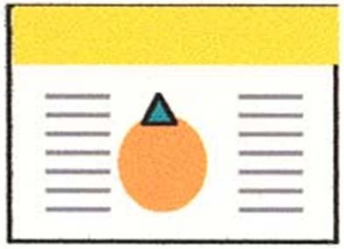


How to get started:

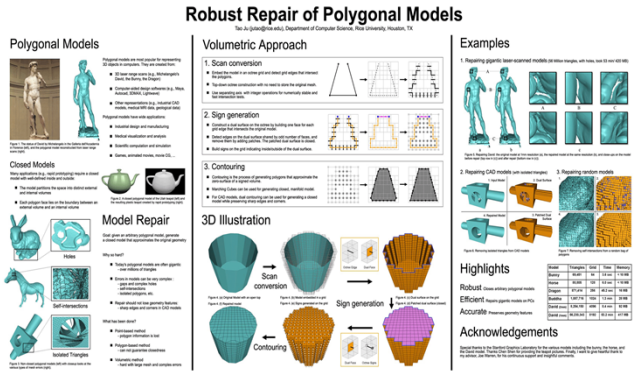
Choose a poster layout

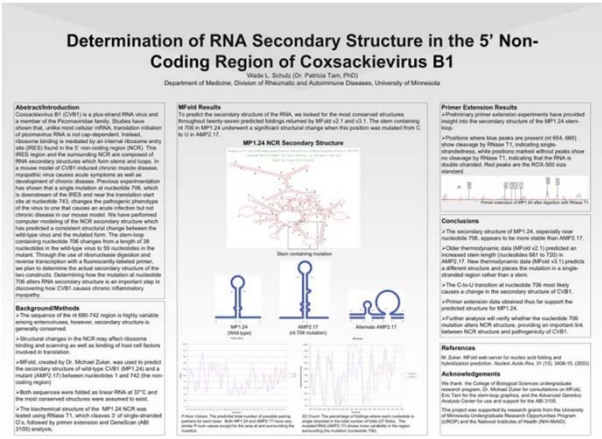
vertical columns

contrasting fields



centered images w/ explanations



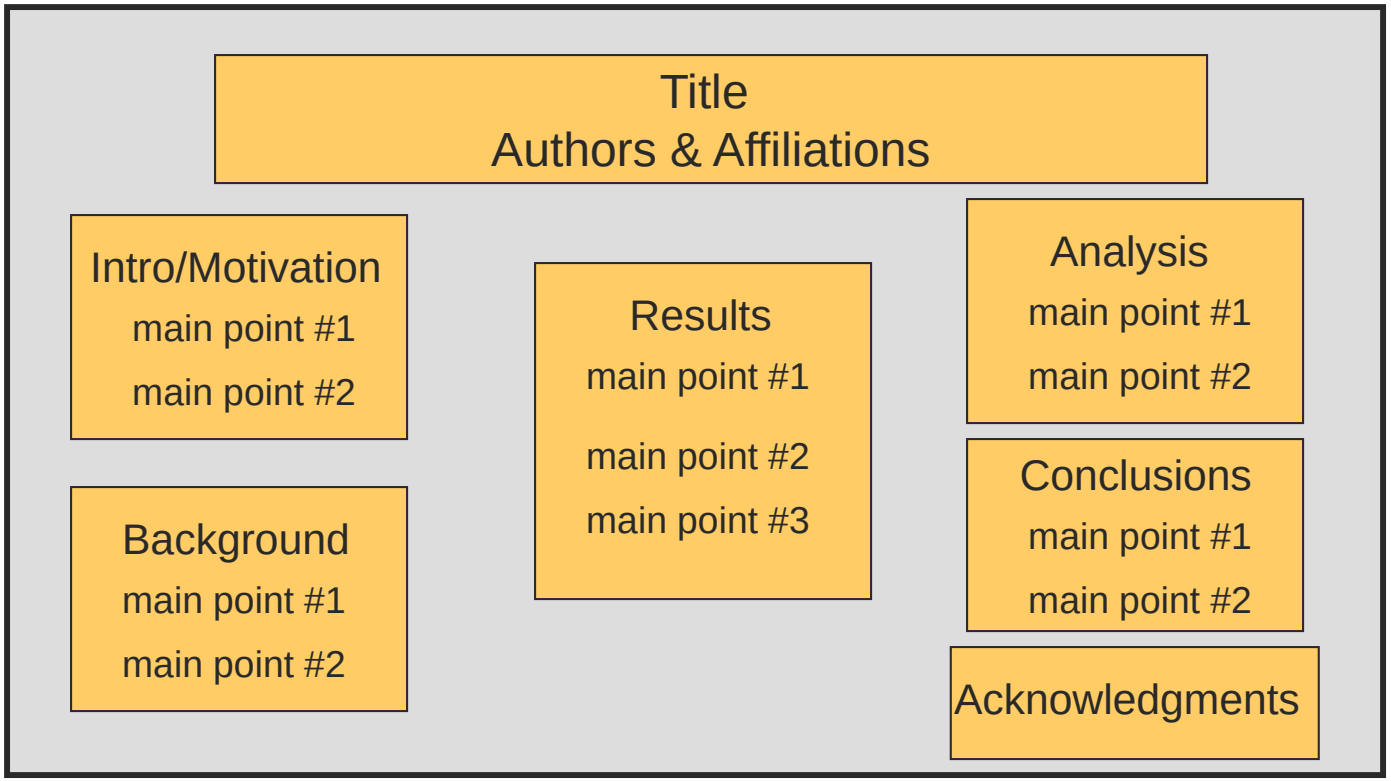


How to get started:

Sketch your organizational plan on paper

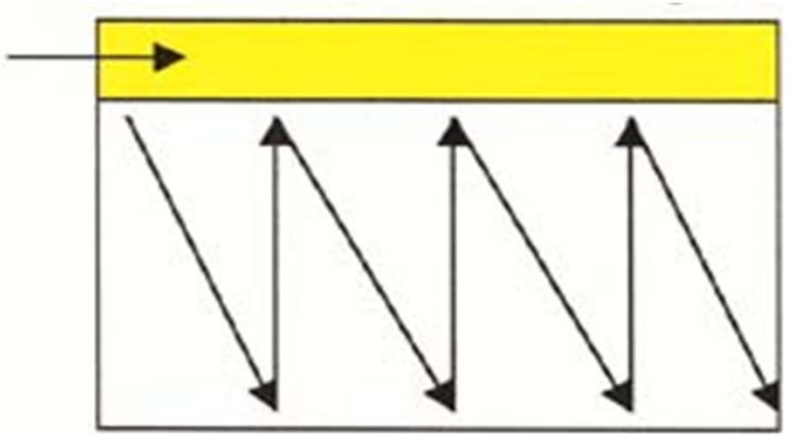
Write down the key ideas in each section

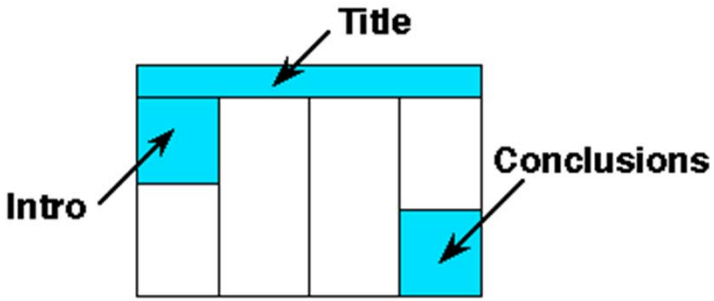
Identify the figures/results that best convey your ideas in each section



How to get started:

Make sure there's a coherent "flow" in your sections



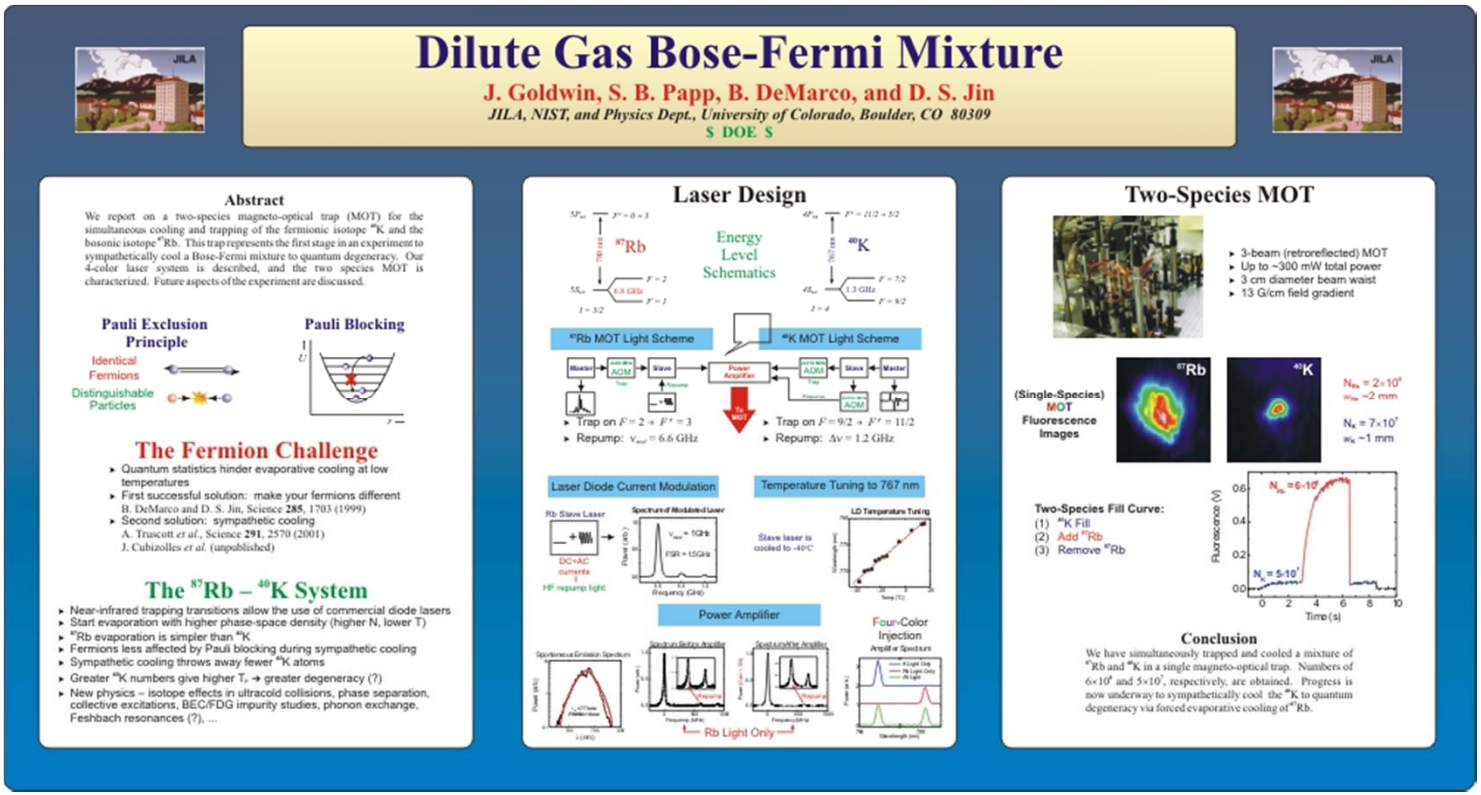


You're telling a story, so make sure the reader knows where to start and end

http://www.owlnet.rice.edu/~cainproj/designing.html

How to get started:

Use lots of blank space around margins to define sections:

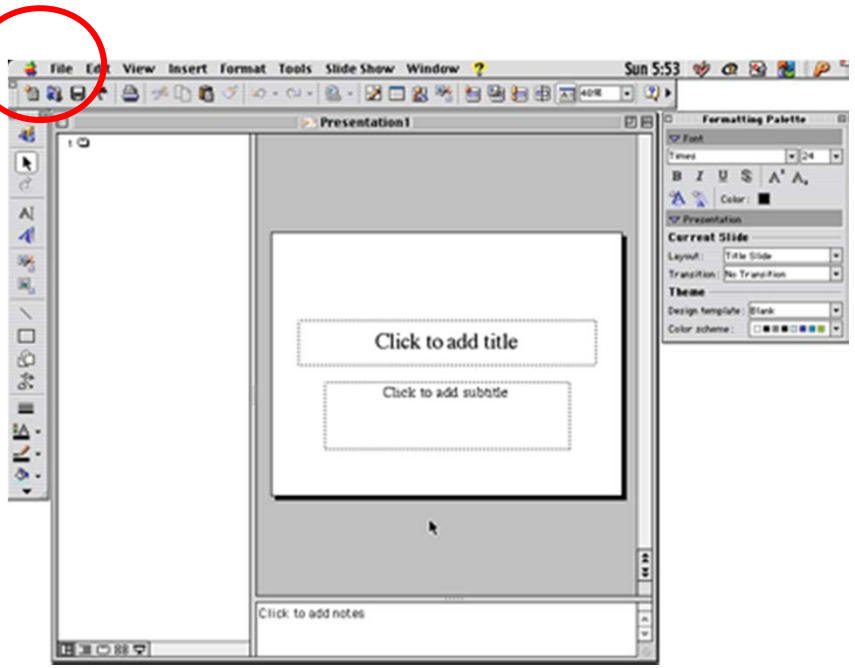


Courtesy B. DeMarco

How to get started:

Setting up PowerPoint:

Select “Page Setup” under File Menu →



Slides sized for: Custom

Orientation of slides: Landscape

Width of slides: 56 inches

Height of slides: 28 inches

Title: 90-120 pt, sans serif font

Author: 48-60 pt. sans serif

Headings: 70-80 pt. sans serif

Main text: 36-40 pt. sans serif

Other tips: Text

Text and figures should be legible from 3-5 feet away: 36 pt. font size minimum!

Edit excessive text!! Poster should have roughly 20% text, 40% figures, 40% space

Use sans serif fonts: these fonts are more legible than serif fonts from a distance

Headings and other text having the same level of importance should be the same font size

Generally, putting information in “bullet” form, rather than in sentences, is better:

Original

The ideal anesthetic should quickly make the patient unconscious but allow a quick return to consciousness, have few side effects, and be safe to handle.

http://www.owlnet.rice.edu/~cainproj/designing.html

Revised

Ideal anesthetics should:

- offer quick sedation
- provide quick recovery
- have few side effects
- be safe to handle

Other tips: Color

Use color to define relationships between different areas of the poster

Use color to create coherence and guide the reader through your poster

DON'T overuse color…too much variation will distract from the substance of your poster

DON'T use color arbitrarily – the reader expects color to *mean something*, so they'll be confused if it's arbitrarily applied

DON'T use a distracting background, and make sure there's sufficient contrast between the background and the text

Beware shading of backgrounds…this sometimes doesn't show up well when enlarged to full poster size

Other tips: Figures

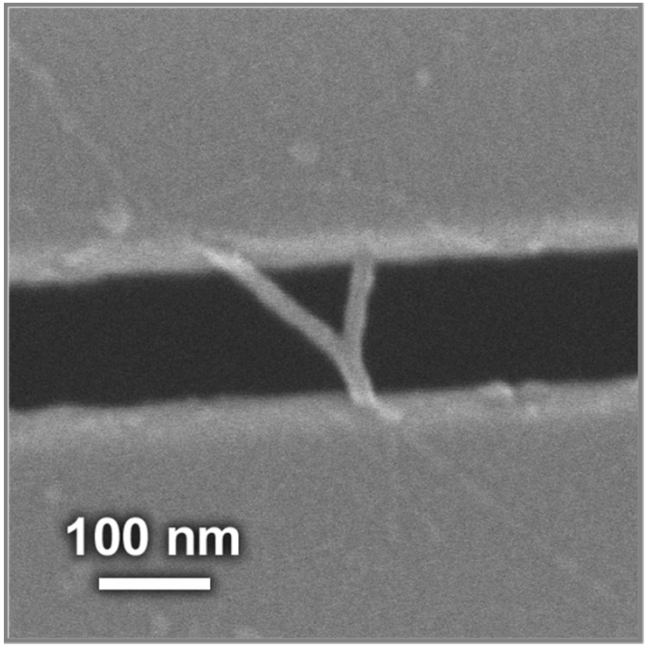
Make sure to label all figures with legible fonts and font sizes

Include a brief caption for the figure, or explicitly refer to the figure in the text

Make sure your images and figures are of sufficiently high resolution to be enlarged

Make sure your figures advance the points you're making in the text

Use darker background for lighter figures/pictures, and a lighter background for darker figures/pictures

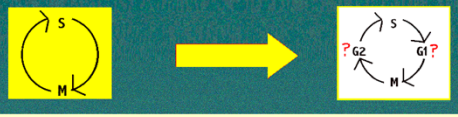


Critique these posters:

What makes your CELLS tick?

Coordination of cell proliferation and cell-type specification in vertebrate embryos: the role of dynamic regulation of the cdc25 phosphatases.

Mercedes Barrutia, Damian Nogare , Mary Ellen Lane, Ph.D.



ABSTRACT

The generation of a multicellular embryo from a single-celled zygote requires coordinating cell proliferation with mechanisms that regulate cell-type specification and cell movement. It is therefore essential that the rate of cell proliferation is variable for different populations of embryonic cells and different developmental stages. Following early, rapid, synchronous cell divisions, dynamic spatiotemporal regulation of cell proliferation is observed. We are interested in the molecular mechanisms that produce this spatiotemporal control in the embryo of a vertebrate, the zebrafish *Danio rerio*. Due to its rapid development, large transparent embryos, and genetic tractability, zebrafish is the ideal vertebrate model for these studies. In all eukaryotic organisms, the cdc25 tyrosine phosphatase plays a major role in cell cycle progression via activation of Mitosis Promoting Factor (MPF). Most higher metazoan genomes contain more than one gene encoding cdc25 phosphatases. To determine whether dynamic transcription of cdc25 is an important mechanism for spatiotemporal control of cell proliferation, as is the case in the *Drosophila* embryos, we are isolating the zebrafish genes encoding cdc25 by PCR. We have identified the zebrafish cdc25A gene and examined its spatiotemporal expression in developing embryos by *in situ* hybridization. Expression of cdc25A is observed in only a subset of proliferating cells of the developing nervous system and mesoderm. In some of these cells, namely the precursors of primary motor neurons (PMN) and retinal ganglion cell (RGC), expression appears to be restricted to the terminal mitosis. Future work will focus on analyzing the coordination of cdc25A transcription with the mechanisms that control differentiation of these cells, and on isolation and expression analysis of additional cdc25 genes.

METHODS:

to isolate cdc25, I made primer pairs from an expressed sequence tag (EST), which is homologous to cdc25. Then I was able to clone Cdc25 from cDNA library (of zebrafish) through PCR reaction and expression vectors. After isolation, I determined when and where the gene is expressed through *in-situ* hybridization.

RESULTS

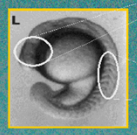


Figure 1: Expression of the CDC25 in the Retinal Ganglion Cells at the Terminal Mitosis Stage.

Figure 2: Expression of the CDC25 in the Primary Motor Neurons at the Terminal Mitosis Stage.

INTRODUCTION

With knowledge of the cell cycle and its' regulators in other experimented organisms, we may be able to discern how certain aspects of processes, morphogenesis and pattern formation, are regulated at a molecular level in the zebrafish. In early embryonic cells, the cell cycle is synchronous and consists of two phases: mitosis (M) and synthesis (S). A two-subunit phosphoprotein of Cdk and cyclin, known as Mitosis Promoting Factor (MPF), is responsible for the entry to Mitosis. At later stages, the cell cycle experiences a transition (mid-blastula stage) from maternal mRNA control to zygotic mRNA control, synchronous to asynchronous cell division, and entrance of G1 and G2 phase. According to research on *Drosophila* flies, the MPF for the progression through G2 phase is activated through steps of phosphorylation/dephosphorylation on the Cdk subunit: (1) phosphorylation at residues Threonine-161, Tyrosine-15, and Threonine-14 by a particular set of enzymes, and (2) dephosphorylation of Thr 14 and Tyr 15 by an Cdc25 enzyme (called *string*) (Voet & Voet, 1995). Identifying Cdc25 in zebrafish will allow us to understand the cell-to-cell interaction occurring at the cell cycle for most higher metazoan genomes.

Selected Sources:

Gilbert, S. F. (1997). Developmental Biology (5th ed.). Sunderland: Simauer Associates.

Kimmel et al. (1995). *Developmental Dynamics* 103:253-310. New York: Wiley & Sons. http://zfin.org

Lehner, C., and Lane, M.E. (1997) *Journal of Cell Science* 110, 523-528. Great Britain: The Company of Biologists Limited.

Voet, D., & Voet, J. G. (1995). Biochemistry (2nd ed.). New York: John Wiley & Sons.

Please feel free to contact alegris@rice.edu

Critique these posters:

Robust Repair of Polygonal Models

Tao Ju (jutao@rice.edu), Department of Computer Science, Rice University, Houston, TX

Polygonal Models

Figure 1. The statue of David by Michelangelo in the Galleria dell'Accademia in Florence (left), and the polygonal model reconstructed from laser range scans (right).

Polygonal models are most popular for representing 3D objects in computers. They are created from:

- 3D laser range scans (e.g., Michelangelo's David, the Bunny, the Dragon)
- Computer-aided design softwares (e.g., Maya, Autocad, 3DMAX, Lightwave)
- Other representations (e.g., industrial CAD models, medical MRI data, geological data)

Polygonal models have wide applications:

- Industrial design and manufacturing
- Medical visualization and analysis
- Scientific computation and simulation
- Games, animated movies, movie CG, ...

Closed Models

Many applications (e.g., rapid prototyping) require a closed model with well-defined inside and outside:

- The model partitions the space into distinct external and internal volumes
- Each polygon face lies on the boundary between an external volume and an internal volume

Figure 2. A closed polygonal model of the Utah teapot (left) and the resulting plastic teapot created by rapid prototyping (right).

Model Repair

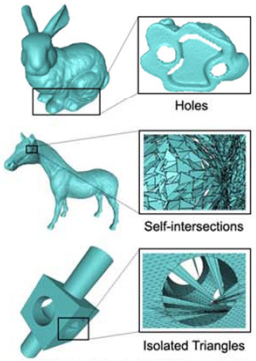


Figure 3. Non-closed polygonal models (left) with closeup looks at the various types of mesh errors (right).

Goal: given an arbitrary polygonal model, generate a closed model that approximates the original geometry

Why so hard?

- Today's polygonal models are often gigantic
  - over millions of triangles
- Errors in models can be very complex :
  - gaps and complex holes
  - self-intersections
  - isolated polygons, etc.
- Repair should not lose geometry features:
  - sharp edges and corners in CAD models

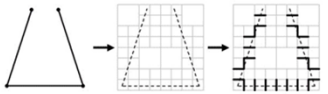
What has been done?

- Point-based method
  - polygon information is lost
- Polygon-based method
  - can not guarantee closedness
- Volumetric method
  - hard with large mesh and comples errors

Volumetric Approach

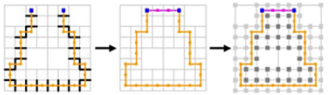
1. Scan conversion

- Embed the model in an octree grid and detect grid edges that intersect the polygons.
- Top-down octree construction with no need to store the original mesh.
- Use separating axis with integer operations for numerically stable and fast intersection tests.



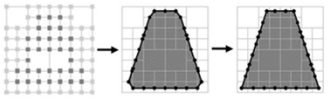
2. Sign generation

- Construct a dual surface on the octree by building one face for each grid edge that intersects the original model.
- Detect edges on the dual surface shared by odd number of faces, and remove them by adding patches. The patched dual surface is closed.
- Build signs on the grid indicating inside/outside of the dual surface.



3. Contouring

- Contouring is the process of generating polygons that approximate the zero-surface of a signed volume.
- Marching Cubes can be used for generating closed, manifold model.
- For CAD models, dual contouring can be used for generating a closed model while preserving sharp edges and corners.



3D Illustration

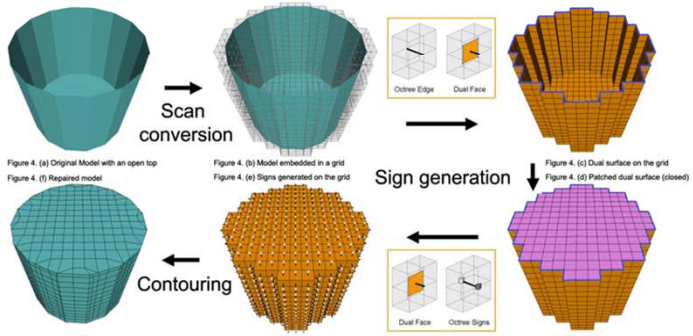


Figure 4. (a) Original Model with an open top
Figure 4. (b) Model embedded in a grid
Figure 4. (c) Dual surface on the grid
Figure 4. (d) Patched dual surface (closed)
Figure 4. (e) Signs generated on the grid
Figure 4. (f) Repaired model

Examples

1. Repairing gigantic laser-scanned models (56 Million triangles, with holes, took 53 min/ 420 MB)

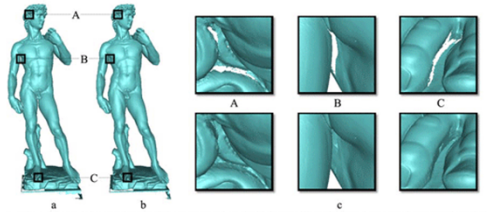


Figure 5. Repairing David: the original model at 1mm resolution (a), the repaired model at the same resolution (b), and close-ups on the model before repair (top row in (c)) and after repair (bottom row in (c)).

2. Repairing CAD models (with isolated triangles)

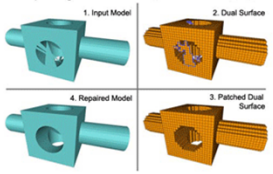


Figure 6. Removing isolated triangles from CAD models

3. Repairing random models

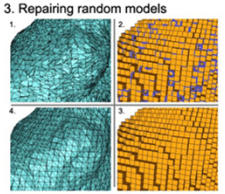


Figure 7. Removing self-intersections from a random bag of polygons

Highlights

Robust Closes arbitrary polygonal models

Efficient Repairs gigantic models on PCs

Accurate Preserves geometry features

Model	Triangles	Grid	Time	Memory
Bunny	69,451	64	3.6 sec	< 10 MB
Horse	80,805	128	6.0 sec	< 10 MB
Dragon	871,414	256	45.2 sec	16 MB
Buddha	1,087,716	1024	1.3 min	28 MB
David (2mm)	8,254,150	4096	8.4 min	92 MB
David (1mm)	56,230,343	8192	53.2 min	417 MB

Acknowledgements

Special thanks to the Stanford Graphics Laboratory for the various models including the bunny, the horse, and the David model. Thanks Chen Shen for providing the teapot pictures. Finally, I want to give heartful thank to my advisor, Joe Warren, for his continuous support and insightful comments.

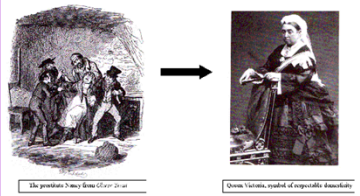
Critique these posters:

Were Victorian Fallen Women Doomed?

LAURA GARDNER
laurag@rice.edu
RICE

The Question of REINTEGRATION

Could a Victorian woman ever transform from a **Fallen Woman** into a **Respectable Matron?**



The prostitute Nancy from *Oliver Twist* — Queen Victoria, symbol of respectable domesticity

Victorian literature portrays how numerous respectable ladies become fallen women – women who have had heterosexual relations outside of marriage. Often, polite society shuns the fallen woman, leaving her to endure a disgraced, alienated life.

But could fallen women ever reintegrate into society? Could a fallen woman ever regain her former status or even marry a respectable man?

I posit that a significant number of Victorian fallen women, real and fictional, reintegrated into society. I also propose that an even greater number empowered themselves by constructing and controlling their own narratives.

Methodology

This project examines the representation of fallen women in both literary and historical accounts. I consulted Victorian handbooks on rescuing fallen women, treatises on prostitution, the annual reports of reform shelters for fallen women, and the records of rescue societies such as the Female Mission to the Fallen. In my research, I try to locate the stories of fallen women's reintegration and empowerment.

Special Thanks

Professor Robert L. Patten, Rice University
Professor John Sutherland, University College London
Professor Helena Michie, Rice University
Rice Undergraduate Scholars Program
The British Library
The Wellcome Trust Library

The Common View

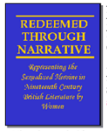
- **Fallen women never reintegrated**

In her study *Fallenness in Victorian Women's Writing*, Deborah Anna Logan contends that most fictional fallen women were never fully reintegrated into society.

Logan studies mostly lower-class fallen characters created by female authors. Of the fallen characters she analyzes, all are "punished by the literal and metaphorical death or disfigurement of themselves or their children; none of them marries or otherwise achieves social integration."

Logan concludes, "What was true of eighteenth-century writers on the fallen-woman theme remains true a century later: 'no author has yet been so bold as to permit a lady to live and marry, and be a woman after this strain.'"

- **Fallen women were silent, passive victims**



Roxanne Eberle's dissertation, "Redeemed through Narrative: Representing the Sexualized Heroine in Nineteenth-Century British Literature by Women," presents an even bleaker view of the Victorian fallen woman.

According to Eberle, Victorians imagined only one fate for the fallen woman, known as the "Harlot's Progress." She summarizes, "girl is seduced, girl suffers, girl repents, and girl dies."

Eberle continues, "The sexually transgressive heroine of the Victorian period is not the philosophical and self-conscious speaking subject found in Romantic texts." Although her plight is recorded in social reform literature, it only "informs us of a great 'social evil' of which she is a victim and rarely a critic." This statement implies that fallen women never thoughtfully articulated their pasts and never knew any fate besides victimization.

- **Reform shelters oppressed fallen women**

In her dissertation, Eberle also asserts that the Magdalen reform shelters established to reintegrate fallen women were victimizing structures. She writes, "Magdalen houses are merely a literal manifestation of the growing cultural desire to police female sexuality through law, medicine, and other institutions." These reform shelters, also known as Homes, only strove to "isolate fallen women," suppress their stories, and "shut 'contaminated' female bodies up."

Eberle affirms that Victorian fallen women "tend to be acted upon; they are invariably the passive recipients of disciplinary politics."

Selected Sources

Eberle, Roxanne, dissertation, "Redeemed through Narrative: Representing the Sexualized Heroine in Nineteenth-Century British Literature by Women," University of California at Los Angeles, 1994.

Logan, Deborah Anna, *Fallenness in Victorian Women's Writing*. Columbia: University of Missouri, 1998.

Mumm, Susan, "'Not Worse Than Other Girls': The Convent-Based Rehabilitation of Fallen Women in Victorian Britain," *Journal of Social History* 29 (1996): 527-546.

Tait, William, *Magdalenism*, Edinburgh, P. Rickard, 1842.

The 1866 Annual Report, London, The Female Mission to the Fallen, 1866.

Challenges from MY RESEARCH

- **Victorian authors depicted women marrying after a sexual fall**

In *David Copperfield* (1849-1850) by Charles Dickens, Martha Endell, a former prostitute, emigrates to Australia and marries a farm-laborer.

Wilkie Collins's *The New Magdalen* (1876) focuses on the reintegration of Mercy Merrick, a former reform shelter inmate. Mercy marries a clergyman and subsequently emigrates to the New World with her husband.

- **'Real' fallen women also married**

The 1866 report of The Female Mission to the Fallen records how one rehabilitated fallen woman is "now engaged to be married to the son of a clergyman, with the full consent of the young man's family." Numerous other marriages are narrated in these reports.

- **Not all Victorian fallen women were victims**

Victorian reform writer William Tait declares that no fallen woman "ought to be given up as being beyond the reach of remedy."

In 1866, the Female Mission announced plans to employ a Missionary to deal exclusively with preventing fallen women from committing suicide. After rescuing these women, Missionaries found them employment or helped them enter reform shelters.

- **Fallen women controlled their narratives**

William Makepeace Thackeray's *Vanity Fair* (1846-48) portrays the adventures of Becky Sharp. After living on the margins of society for a while, Becky uses the narrative of her victimization—isolation from her son, threats of suicide, consorting with questionable company—to gain sympathy and financial support from the other characters.

Reform Shelters: A Different Perspective

- **GOAL: To reintegrate women, not isolate them**

Reform shelters operated with the specific intention of reassimilating fallen women into society. According to Tait, after their stay in the shelters, women did "become useful and honorable members of society."

Urania Cottage, the shelter run by Dickens

- **Making victims into agents**

Susan Mumm, a scholar at York University, has documented how church-based reform shelters attempted to give their inmates increased agency by "giving them specialized training." As a higher-status servant such as "parlourmaids," women might be better able to defend themselves from the advances of others.

- **Publishing the fallen woman's narrative**

Each year, reform shelters and agencies published reports detailing the cases they helped. Reform workers narrate the circumstances of the women's falls. These case histories do not gloss over the poverty, assault, and exploitation faced by these women. Often the reports include letters by the fallen women describing their new lives in society.

Critique these posters:

VITAMIN C: THE MULTIFUNCTIONAL ANTIOXIDANT

Rice University

BACKGROUND

Vitamin C (Ascorbic Acid) is an essential nutrient discovered in 1932 by Albert Szent-Györgyi, who isolated the antiscorbutic factor as pure crystalline material from lemon juice. In the past 25 years, much of the vitamin's biochemical functions have been elucidated, inducting vitamin C to the treatment of viral infections, diabetes, and even cancer prevention. Today, scientists' growing knowledge of ascorbic acid uncovers the significance of its antioxidant property, making its organic synthesis one of high demand for research and public consumption.

ANTIOXIDANT PROTECTION

- Stability of antioxidant free radicals
- Resonance delocalization
- Further oxidation of antioxidant radicals
- Reduction of radical species

REACTION MECHANISMS

Antioxidant Radical Formation

$R\cdot + AH \rightarrow RH + A\cdot$

$RO\cdot + AH \rightarrow ROH + A\cdot$

$ROO\cdot + AH \rightarrow ROOH + A\cdot$

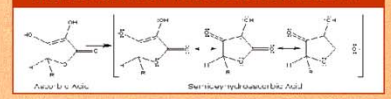
Radical Chain Termination

$R\cdot + A\cdot \rightarrow RA$

$RO\cdot + A\cdot \rightarrow RA$

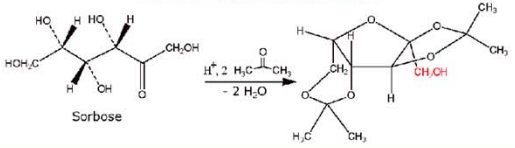
$ROO\cdot + A\cdot \rightarrow RA$

ANTIOXIDANT RADICAL STABILITY

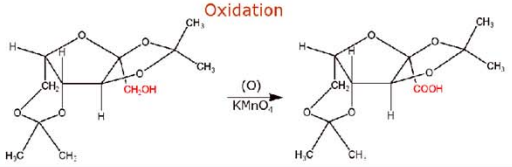


ORGANIC SYNTHESIS OF VITAMIN C

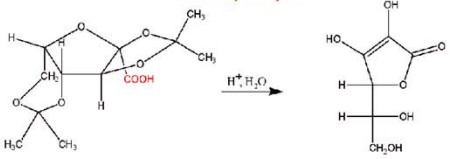
Acid Catalyzed Acetalization



Oxidation



Acid Hydrolysis



CHEMICAL FUNCTIONS

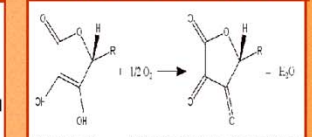
Antioxidant

- Hydrogen donation to lipid radicals
- Removal of molecular O
- Quenching of singlet O
- Regeneration of tocopherol radicals

Prooxidant

- Reduction of Fe^{+3} to Fe^{+2}

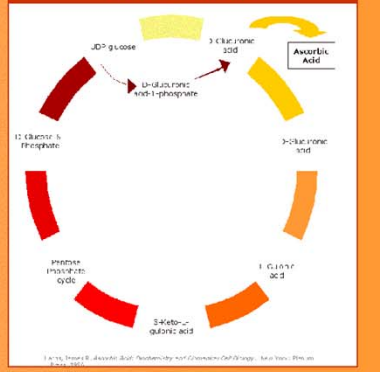
OXYGEN SCAVENGER



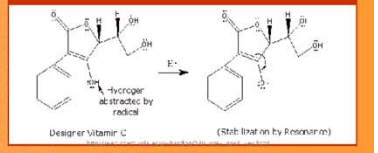
BIOLOGICAL BENEFITS

- Defense against common cold
- Collagen formation
- Absorption of inorganic iron
- Metabolism of folic acid, amino acids, and hormones
- Protection of DNA, cell membranes, and critical molecules from radicals

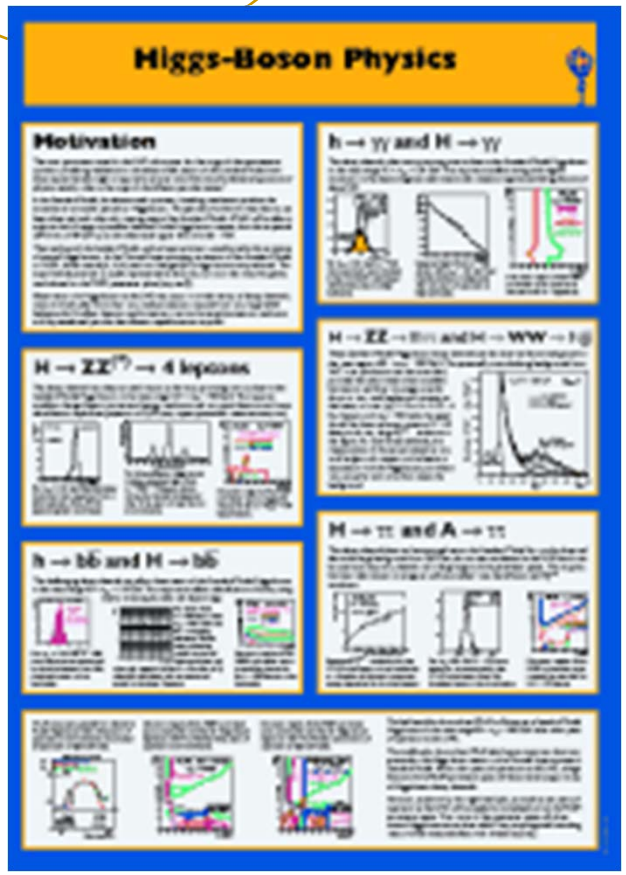
BIOSYNTHESIS

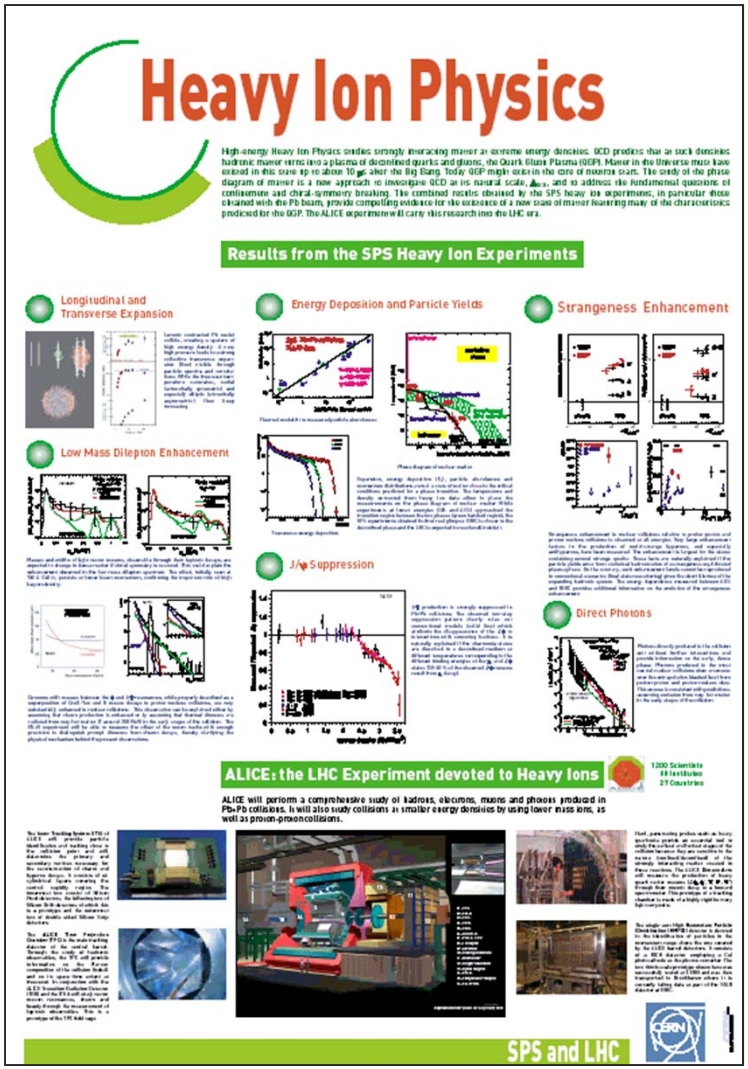


DESIGNER VITAMIN C



Critique these posters:





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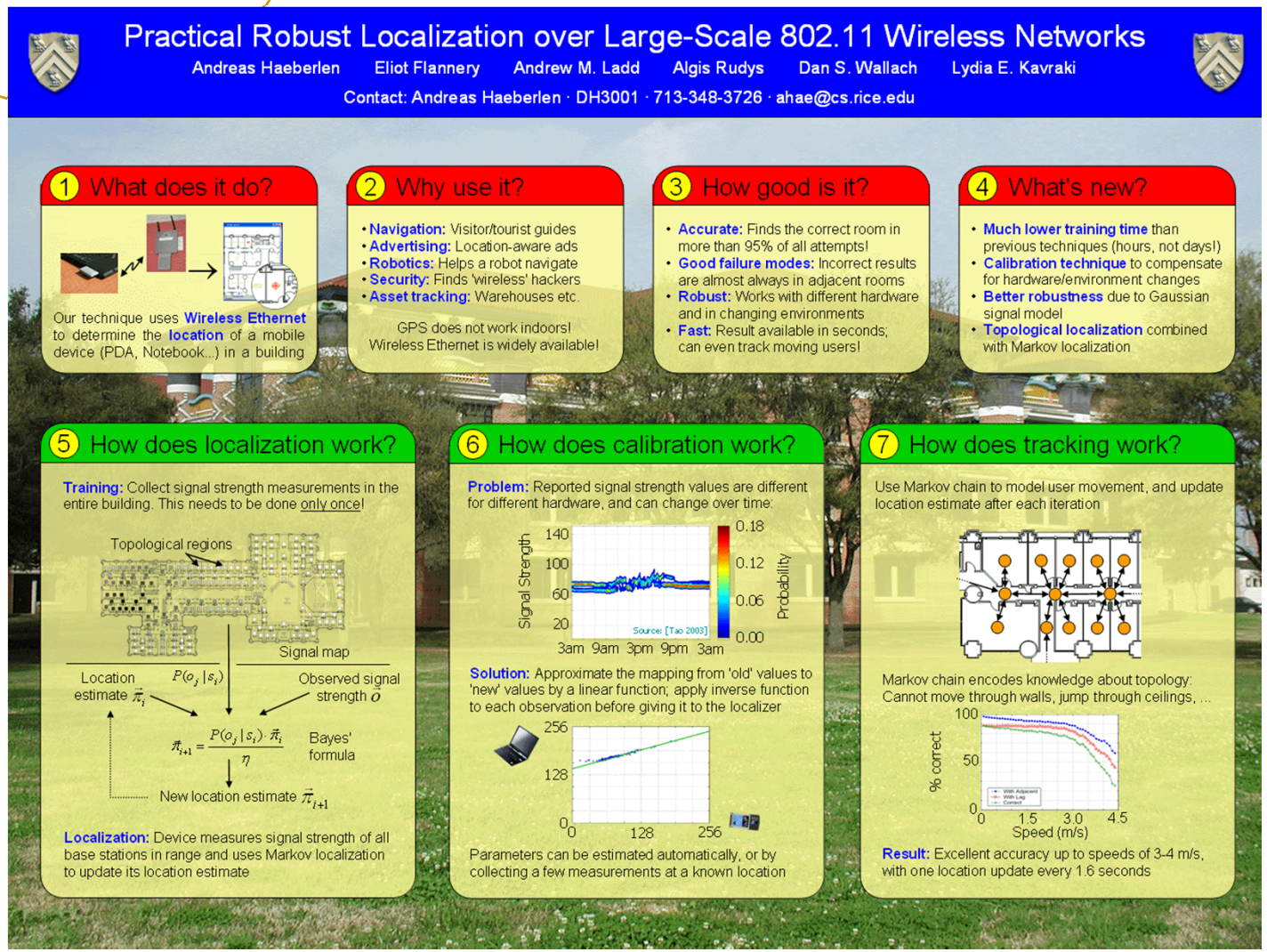

Informal Homework Assignment

- Go to the “classroom corridor” on the first floor of Loomis to check out the Senior Thesis posters
  - look at and critique the posters you see
  - which ones are most effective?
    - capture your interest
    - easily navigable
    - etc., etc.
  - What features of posters you see should you avoid?