

# Visualization 2014

## Lecture 5: Volume Rendering and P3

Mario Romero  
2014/04/15



Golan Levin was invited by the FITC answering "Ask Me Anything" questions.

# Prelude Videos

vimeo

Join

Log In

Create

Watch

Upload

Search



MORE VIDEOS



## Golan Levin's AMA Video Uses Experimental 3D Cinema

from FITC [PLUS](#) 2 years ago NOT YET RATED

# Old Schedule

L1	Tue	25 mar	08:00-10:00	Introduction	
L2	Thu	27 mar	15:00-17:00	Why Visualization, Visualization Pipeline	
L3	Tue	1 apr	08:00-10:00	Visit Pipeline, Scientific Visual Storytelling	P1
L4	Tue	8 apr	08:00-10:00	VMD Pipeline, Group formations	P2
<b>L5</b>	<b>Tue</b>	<b>15 apr</b>	<b>08:00-10:00</b>	<b>Volume Rendering</b>	<b>P3</b>
L6	Tue	22 apr	08:00-10:00	Proposals	P4.1
L7	Tue	29 apr	15:00-17:00	“Hello World”	P4.2
L8	Tue	6 may	08:00-10:00	Update 1	P4.3
L9	Fri	9 may	15:00-17:00	Update 2	P4.3
L10	Tue	13 may	08:00-10:00	Update 3	P4.3
L11	Thu	15 may	15:00-17:00	Final Demo	P4.4
	Thu	22 may	23:59	Webpage Report	P4.5

# New Schedule

L1	Tue	25 mar	08:00-10:00	Introduction	
L2	Thu	27 mar	15:00-17:00	Why Visualization, Visualization Pipeline	
L3	Tue	1 apr	08:00-10:00	Visit Pipeline, Scientific Visual Storytelling	P1
L4	Tue	8 apr	08:00-10:00	VMD Pipeline, Group formations	P2
<b>L5</b>	<b>Tue</b>	<b>15 apr</b>	<b>08:00-10:00</b>	<b>Volume Rendering</b>	<b>P3-1</b>
L6	Tue	22 apr	08:00-10:00	Presenting Project 3	P3-2
L7	Tue	29 apr	15:00-17:00	Proposals	P4.1
L8	Tue	6 may	08:00-10:00	“Hello World”	P4.2
L9	Fri	9 may	15:00-17:00	Update 1	P4.3
L10	Tue	13 may	08:00-10:00	Update 2	P4.3
L11	Thu	15 may	15:00-17:00	Final Demo	P4.4
	Thu	22 may	23:59	Webpage Report	P4.5

# Outline

1. Previously on VIS14
2. Readings for L6
3. Project 3 update
4. Readings for L5
5. Groups Project 4
6. Brainstorming Project 4

# PREVIOUSLY ON IVIS14

# Whiteboard discussion

VMD VIS14-P2

VISUALIZATION MOLECULES

ATOMS

POSITIONS

BONDS

ORIENTATION

→ DEFINE ROLE

.PDB: BASIC FILE

FIELDS | DIMENSIONS | VIEWS

COLUMNS (TABLE: ROWS ARE ENTRIES)

YAW



CAMERA



PITCH



ROLL

MODEL: ROTATIONS

## CONSTRUCTIVE CRITICISM

- MACRO WILL SELECT APPROPRIATE FEATURES BUT IF NOT IN MODEL SHOULD BE "GRAINED OUT"
- MULTI-WINDOW INTERFACE GETS IN THE WAY
- "WOULDN'T IT BE GREAT IF YOU COULD JUST CLICK ON IT."

WOULDER.

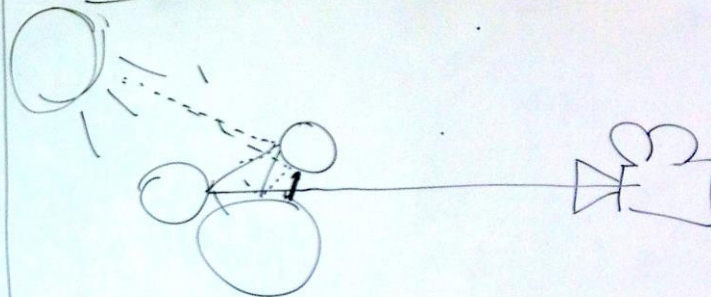
- MOLECULE
- EXTRACTING INSULIN

- RENDERING

PROPER ZENDERING?

- RAY TRACING?

Focus &  
CONTEXT



# Readings for next class (L6)

- **Introduction to Scientific Visualization, Chapter 4, [Colour in Scientific Visualization](#)**
  - Helen Wright
  - [LINK](#)
  - Write 100-word reflection on how you can use chapter 4 for your project 4.
- **Send a PDF with the reflection to [marior@kth.se](mailto:marior@kth.se) by next Monday 20/4 at 23:59. Use "VIS14 – Reading L5" on the headline of the subject.**





# Group Formation

- Please, form groups.
- Think about who you want to collaborate with.
- Think about interests and skills.
- Use the file I posted to help you.
- Use the visualizations from the previous course to help you.

# IVIS14 Project 1

- [http://www.aw-jansen.nl/IVIS14\\_1/](http://www.aw-jansen.nl/IVIS14_1/)
- <http://project1.net46.net/Project1.html>
- <http://www.csc.kth.se/~lgraf/ivis/project1/>
- <http://henrilouis.com/ivis/teams/>
- <http://www.nada.kth.se/~dmol/plugg/ivis14/project1/>
- <http://www.csc.kth.se/~dmans/ivis14/p1/tool.html>
- You could use the file and the visualizations above to create groups.
- You can group with people you know and work well with.

# Brainstorming

- I will post ideas.

Thank you!

marior@kth.se