### Key Points discussed

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<th>No.</th>
<th>Topic</th>
<th>Highlights</th>
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| 1   | Announcements/Introduction | • See attached presentation slides  
• Moncef Krarti is now an ASME fellow  
• Jason Ren selected as New Inventor of the Year  
• Come to visit day on Feb 27th, please RSVP for lunch, we have enough funding for travel expenses for 50 students  
• There are now 250+ applications for the faculty searches, volunteers will be needed for hospitality functions for the campus visits  
• CIRES – 4 candidates to be interviewed, Balaji will email seminar information when they visit |
| 2   | Updates from Research Computing (Shelley Knuth and Thomas Hauser) | • Research computing (a part of OIT that runs Janus supercomputer) described new services and initiatives from their group available for faculty, students, postdocs.  
• See attached handouts for the 5th annual Rocky Mountain HPC Symposium and an overview of Research Computing  
• Large computing facilities: Janus supercomputer – no fee, requires proposal  
New ‘condo’ clusters – own your own node, run longer projects with priority, same environment and software as Janus  
• Data services:  
Help with data management plans  
Project data storage for researchers for minimal cost  
• Training:  
Listed on the meetup group and website, or arrange custom for student needs  
• They are still looking for feedback on Janus software |
| 3   | Technology in teaching (Joe Kasprzyk) | • See attached presentation slides  
• Check OIT resources website for all setup and university specific links for the following free resources:  
*Mastering Engineering* – assign online homework with multiple generated values  
*Office 365* – collaborate on documents online with version control for proposal preparation, works with one drive |
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*Overleaf* – collaborative platform for LaTeX online  
*Lynda* – videos for learning skills for students to watch, engineering and applied topics  
*Voicethread* – record lectures slide by slide, you can upload a PDF and then comment on the video using audio or with written notes, this can be integrated in D2L or shared with a link  
*Zoom* – could meeting which people can join over the phone or online with video, you can also record the meeting  
*Clickers* – you can ask questions and have all students respond, helps to engage large classes and can also connect over a $10 phone application
Announcements

Moncef Krarti
Fellow – American Society of Mechanical Engineers

Dr. Krarti, Professor, Building Systems Program, Civil, Environmental and Architectural Engineering Department at the University of Colorado, has been active in ASME from the last 25 years, especially in the ASME Solar Energy Division. He has served both as Technical and Conference Chairs, and is a past President of SED. He has contributed enormously in the fields of sustainable energy through his publications, over $15M in sponsored research, research supervision of graduate students and undergraduate teaching. He is considered a world expert in building energy management and has helped establish energy efficient programs in several countries.
Announcements

New Inventor of the Year – 2015
Technology Transfer Office (TTO)

Jason Ren

• For contributions to technologies that have reach and impact far beyond our campus

• The inventor of the year awards are presented to researchers representing best practices in the commercialization of university technologies
Announcements

• Graduate Visit Day
  • February 27, 2015

• Faculty Searches
  • Evaluation of applications, skype/phone interviews
  • Shortlisting of candidates
    • Building Systems - shortlisted 3 candidates
    • SESM and Geotech
    • Interviews in March/April
Announcements

• CIRES – Physical Hydrology Position
  • 4 candidates selected for interview
    • Ben Livneh http://www.esrl.noaa.gov/psd/people/ben.livneh
      (Feb 24-25)
    • Chrisata Kelleher - http://christakelleher.weebly.com/
      (Feb 26-27)
    • Jason Gurdak - http://online.sfsu.edu/jgurdak/
      (Mar 2-3)
    • Tamlin Pavelsky - http://www.geosci.unc.edu/page/tamlin-pavelsky
      (Mar 5-6)
Save the Date
5th Annual
Rocky Mountain HPC Symposium
August 11-13, 2015
Wolf Law Building
Boulder, CO

Join us in Boulder for engaging hands-on and lecture style tutorials, educational, professional and student-focused panels, and exciting keynote speakers.

Researchers and faculty can learn about using computational science in the laboratory or classroom and students can learn about career opportunities and display their own research.

Organized and hosted by the
Rocky Mountain Advanced Computing Consortium
www.rmacc.org
Questions? Contact us at rmacc@colorado.edu
The Research Computing group welcomes you! At our web site https://www.rc.colorado.edu you’ll find information about the RC technical environment and services.

Our experienced professional staff looks forward to working with you, understanding your research computing needs and providing solutions in order to facilitate your research. Check out our staff profiles at https://www.rc.colorado.edu/about/staff.

We provide high-performance computing facilities and services that include:
- a 1368-compute-node supercomputer ("Janus")
- several smaller specialized compute clusters
- data management and data plan assistance in collaboration with the University Libraries
- project data storage space for each researcher
- large scale storage for active and archive data ("PetaLibrary")
- a high-speed on-campus network for data transfers ("ScienceDMZ")
- "condo" computing clusters and colocation for researchers who prefer to own their own hardware
- HPC application consulting and training

Getting started with Research Computing resources
A few steps are needed to be able to log in to, and use, the Research Computing environment. Once you have a CU Boulder username (aka IdentiKey) and password, and have verified that your account is working, you can request a Research Computing account through our website. The next step is to acquire a One-time Password device (OTP, a small key fob that looks like a thumb drive), and register and test your OTP device. Please see https://www.rc.colorado.edu/accountrequest for detailed instructions. OTP devices are available on main campus in the TLC building or on east campus at the ARCE building.

Research Computing communications
We have several e-mail lists you can join in order to receive general information and announcements, or to communicate with other HPC users across campus. Check https://www.rc.colorado.edu/connect/mailinglists for more details or to subscribe.

More about RC
The Research Computing group is located in the ARCE building on East campus. Maps and directions can be found here: https://www.rc.colorado.edu/find-us. The group reports dually to the Vice Chancellor of Research, Stein Sture, and the Associate Vice Chancellor of IT and CIO, Larry Levine.

We look forward to working with you!

Feel free to contact us by sending an e-mail to rc-help@colorado.edu.
Some modern technologies at CU to aid in teaching and research

Joseph Kasprzyk, Assistant Professor
Civil Environmental and Architectural Engineering
University of Colorado Boulder
The goals of this presentation are to give you basic resources for CU technologies available to faculty/staff/students.

- **Software Downloads**: be aware there is free software available for CU folks
- **VoiceThread**: provide video and voiceover for lecture slides, picture shows, documents
- **Zoom**: audio/video/screenshare conferencing
- **Clickers**: provide polls to gauge students understanding or get their opinion in large classes

*Disclaimer: I don’t work for Office of Information Technology (OIT)! All links were valid in February 2015 but things may have changed since then!*
Software
Find new software to download by visiting OIT’s Site Licenses page

http://www.colorado.edu/oit/software-hardware/site-licenses

This includes free full versions of:
- Microsoft Office
- Microsoft Windows
- MATLAB
- JMP, a nice statistical analysis and visualization software
- AutoCAD
- ArcGIS

And reduced pricing on other software like SPSS and STATA
Other technologies

• Office 365
  • An online version of Microsoft Office that we have access to
  • http://www.colorado.edu/oit/services/messaging-collaboration/microsoft-office-365

• Adaptive homework problems
  • Assign a unique homework to each student (thanks JH!) with resources from your textbook
  • Mastering Engineering: http://www.pearsonmylabandmastering.com/northamerica/masteringengineering/
  • Wiley Plus: https://www.wileyplus.com/WileyCDA/

• Overleaf
  • Collaborative platform for LaTeX editing: http://www.overleaf.com/

• Lynda.com
  • Videos for learning skills: http://www.colorado.edu/lynda/
VoiceThread
VoiceThread allows people to have asynchronous group conversations around images, videos, documents, presentations, etc.

http://www.colorado.edu/oit/services/teaching-learning-tools/voicethread

• To access VoiceThread go here: https://colorado.voicethread.com/
• Login with your Identikey and password
• The home screen looks like the figure to the right.
VoiceThread instructions

• To create a document, click the ‘Create’ tab then the ‘Upload’ button.
• VoiceThread recommends using PDF files, not Powerpoints.
• When it is done uploading, you’ll see each file as a thumbnail in the window.
VoiceThread instructions

• Now the ‘comment’ menu option on the left hand panel. You should see a screen like the one here.

• Note the ‘comment’ button below the slide. Click it, and begin recording your narration.
VoiceThread Instructions

• There are multiple options for commenting:
  • Camcorder button allows you to record video and audio.
  • Or just record audio by itself, or even type your comments.

• When I click the video button, notice how my face appears from my webcam.

• Make sure to click ‘save’ when you are done with a slide!
VoiceThread Instructions

• The third option in the left pane is to ‘share’ your work.
  • You can do this even if you are not done with your work yet.
• You can share your work directly within Desire2Learn
• Or just share a link with someone!
VoiceThread Advantages/Disadvantages

• Advantages
  • You can go forwards and backwards, and even re-record annotation if you make a mistake on a slide
    • Big advantage compared to screen capturing the whole presentation at once
  • Multiple people can comment on the same document
  • Nice to have a video of the person in addition to voice

• Disadvantages
  • Best for doing a static presentation and not a ‘live demo’. For live demos of your screen try a service like http://www.screenr.com/
  • Because they use PDF it is difficult to do animations on slides
  • Not sure how well it works on mobile platforms
Zoom
Zoom is CU’s new web-conferencing option.
http://www.colorado.edu/oit/services/conferencing-services/web-conferencing-zoom

• Your default account gives you only 40 minutes of time. However a Pro account is free and gives you unlimited time. It’s easy to sign up and I highly recommend it. Go here: https://www.colorado.edu/oit/services/conferencing-services/web-conferencing-zoom/help/request-pro-account/webform/zoom-request

• Advantages:
  • The software is small and will be downloaded automatically onto users’ computers
  • You can do screen sharing and webcam video all at the same time
  • Folks can call in on the phone and also on the computer at the same time.

• To use:
  • Go to http://cuboulder.zoom.us/
  • Click ‘sign in with Google’
  • Enter your Identikey username and password into the box.
Tip: Schedule a meeting to get a professional-looking call in ‘blurb’ for your participants to use.

• In the cuboulder.zoom.us page, click ‘Schedule a meeting’

• Enter the info and click ‘Copy the invitation’

• This invitation can be shared with anyone via email
In screen sharing mode, check out the top menu (green and black box) for options such as controlling someone else’s screen.
Some other Zoom tips

- Do you have 5 people in a conference room, with laptops, who want to share a view of their data with everyone?
  - Instead of changing the projector around a bunch of times, just create a zoom and have everyone join simultaneously.
  - Then, mute all audio except for one computer.
- You can control another person’s screen: just select that option on the main menu of the Zoom window.
- When sharing your screen, you have option of sharing only one window at a time, not your whole desktop
  - This can be easier for people to look at, as compared to trying to decipher 20 windows on your computer.
Clickers
Clickers allow you to interact with your students, especially in a large class
http://www.colorado.edu/oit/services/teaching-learning-tools/cuclickers

• Students buy them at the bookstore, and they are good for multiple classes
• Many large classrooms have a ‘base station’ that you can plug into your laptop. Or you can have your own base station.
• The clicker questions can be in a powerpoint, in a file, on the board…the software does not interact directly with the questions
• Follow OIT instructions for linking clicker results directly to D2L
• Some examples of clicker questions that have worked for me, follow here
What is the dew point? #clickerquestion #timeforclickers #toomanyhashtags

A. Another name for the wind chill
B. The temperature at which the air must be cooled in order for it to become saturated
C. The temperature that separates precipitation into rain and snow
D. The temperature of dew that forms on leaves
Problem 1. Which of the following do you think is true, about hydrology on a global scale?

A. Much more water evaporates from the land than falls to the land from precipitation.
B. More than 100 times more water is stored in ice and snow than in surface water storage (i.e. lakes).
C. More than 100 times more water is stored in surface water sources (i.e. lakes) than in ice and snow storage.
D. The largest storage of all water on earth is in groundwater.
Example: Calculation question

Pretend you are on Survivor™ and answer this question....

One of your team members has caught a disease, and to make a medicine you have to evaporate some water. You have water already at the temperature, 50 degrees Celsius, and you also have access to a heat source that can create up to 5000 kJ of energy. How many kilograms of water can you evaporate for the medicine?

A. 0.04 kg
B. 1.00 kg
C. 2.10 kg
D. 5.00 kg
The End! Thanks for listening.

Joseph Kasprzyk
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“I found a quick fix for our company’s financial problems. I removed the red ink cartridge from the printer.”