APRIL 2012 Issue Number 9

VROC E-News

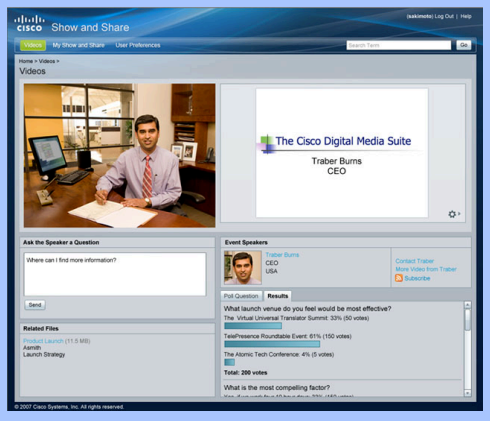
T H E L A T E S T

Cisco's Show and Share: A "Game-Changer" for the VROC program and participants

"This generous donation from Cisco will give classrooms across Ontario instant access to educational and entertaining VROC programing in health and natural sciences, technology, engineering, and mathematics"

- **Kevin Cougler,** *Interim Executive Director*

Show and Share is a webcasting and video sharing application that helps organizations and communities share ideas and expertise. This application has huge implications for VROC and elementary and secondary school classrooms.



Cisco's Show and Share platform brings the curriculum out of the classroom and into the real-world

"It will be a 'game-changer' for the Virtual Researcher On Call program", says Interim Executive Director Kevin Cougler." It will provide teachers with a resource that complements curriculums across Canada by showcasing real life applications of science, technology, engineering and math in the classroom."

Show and Share is part of a large donation from Cisco Systems Canada and complements the donation received from the Federal Economic Development Agency of Southern Ontario.

Teachers and students will have access to VROC programing on this platform by fall 2012!

CORPORATE SPONSOR



VROC is actively seeking a major corporate sponsor for its Reaching Every Student program and podcasting initiatives.

Is your organization interested in encouraging students to learn about health and natural sciences, technology, engineering and mathematics?

Contact Us for a sponsorship package

NEW COMMUNITY MANAGER



Partners In Research would like to welcome Jesse Cressman-Dickinson to the team!

Jesse is a social media enthusiast that enjoys using the medium to achieve mandates and create highly engaged networks.

Please meet Jesse Cressman-Dickinson

This Week in Science and Education

Are there are other universes out there?



by Stacey Joyce

Partners In Research

In **Episodes 65 and 68**, Kevin Cougler and Colin Jagoe visit the **Perimeter Institute** for Theoretical Physics in Waterloo, Ontario. **Episode 65** features Dr. Matt Johnson, a postdoctoral researcher who studies Cosmology.

Although Dr. Johnson received his Ph.D. in physics and is now conducting research at the Perimeter Institute, he originally aspired to be a writer! It was one of his teachers who helped him to appreciate the beauty of mathematics and astronomy. Dr. Johnson now stresses the need for and application of mathematics within all of the sciences, including everything from astronomy to ecology.

Today, Dr. Johnson is a cosmologist, a scientist that studies the structure, evolution, and origin of the universe as a whole. He describes this as similar to being a historian who studies really, REALLY old stuff!

"I get to do exactly what I want," says Dr. Johnson with a laugh. He goes on to say that what he wants to do is answer questions about how the world began and how how we arrived at the point we're at today. Most of these questions revolve around the big bang theory, which is based on evidence that distant galaxies are currently moving away from us in all directions.

So how can we detect this movement of galaxies? Dr. Johnson says that it's similar to the sound we hear when an ambulance drives by. When the ambulance is approaching you, the pitch (or frequency) of the siren is higher. Once the ambulance passes you and starts moving away, the pitch of the siren is lower. This is called the Doppler effect and it applies to both sound and light. Although we can't hear distant galaxies like we hear an ambulance siren, we can detect changes in the frequency of the light they emit. Since recorded data and measurements suggest that distant galaxies are currently moving away from us, cosmologists believe that they must have been much closer together or even on top of one another at the creation of our universe.

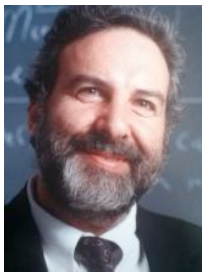
The question Dr. Johnson would most like to answer is whether or not there are other universes out there. He describes the creation of multiple universes as being like a pot of boiling water. As the water boils, bubbles are formed during the transition from liquid to gas. Each of these bubbles represents a single universe that can expand, or even collide with another bubble, or universe.

Dr. Johnson tests for the existence of multiple universes by modeling and working out what evidence should be present if his model is correct. This expected evidence is then compared with actual data collected from the cosmic microwave background radiation in our universe. (This radiation is what causes "snow" or static on your TV!)

Thank you, Dr. Johnson from the Perimeter Institute for encouraging students and adults alike to spend time reading, thinking, wondering and asking lots of questions!



Science Careers Weekly



Episode 48

Coming Soon!

Dr. Gary Libben, psycholinguist and VP Research at **Brock University**



Episode 53

Coming Soon!

Dr. Greg Slater, Geochemist who studies materials from outer space from **McMaster University**

Check out Science Careers Weekly online!

Coming Soon!

Victoria Tschirhart,
Katharine Currie &
Dr. Elizabeth Weretilnyk
from
McMaster University

IN THE CLASSROOM

The Latest Episodes of Reaching Every Student

Dr. Andrew Laursen, Assistant Professor, Chemistry and Biology at Ryerson University discusses taxonomy and conducts a phylogenetic tree exercise with a Grade 11 Biology Class at St. Pius X Catholic High School



Watch the full session HERE

Dr. Pauline Barmby, Assistant Professor, Department of Physics and Astronomy at Western University conducts a virtual tour of the solar system and our place in space with a Grade 6 class at Brighton Public School



Watch the full session HERE

Are you a researcher interested in Participating? Contact Us!

We are currently seeking experts on:

- Cell biology for a grade 7/8 science class
- Endocrine diseases or nerve function disorders for a grade 12 biology class
- Climate change for a grade 10 science class
- Human diseases and cellular changes for a grade 7/8 Science class

Teachers interested in booking a session for their class can Contact Us!

NOTES

A message from the Executive Director

The Ottawa Evening 2012 Gala dinner is fast approaching! I hope to see you there on May 9, 2012.

For more information or to purchase tickets please click HERE.

This year's Evening, entitled: "Virtually Educating our Future" will feature guest speaker and Biomedical Science Ambassador Award Honouree: Senator Kelvin K. Ogilvie and honour Maureen McTeer with The Ronald G. Calhoun Science Ambassador Award for her leadership in health advocacy.



Mr. Kevin Cougler,
Partners In Research
Interim Executive Director

New VROC Program: On The Fly

Instantly connecting researchers in their labs with students in their classrooms.

The On The Fly program is gaining momentum. Currently 50 classrooms in Southern Ontario schools have weekly, real-time access to researchers nationwide.

Through the program teachers are welcoming researchers into their classrooms via video conferencing to enhance the learning experience of their students.

Thank you to everyone that has volunteered their time in making the launch of this program such a success!

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Rx&D Health Research Foundation

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