

INTERNATIONAL YEAR OF ASTRONOMY: COOL COSMOS

## See the galaxy from inside the Red Rocket



ANTHONY REINHART  
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To escape the watchful gaze of the heavens in this town, you can't do much better than the subway.

But, even underground, there's no escaping the omnipotence of space - especially not for the next four weeks, as transit riders will be duly reminded by a cheeky new series of onboard ads.

"Don't just stand there, let those neutrinos through," one reads.

"Not that you have a choice. Trillions of these particles from the sun pass through you every second at nearly the speed of light." Even at night.

**Print Edition - Section Front**



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The ad, one of five that began to appear in every subway carriage, streetcar and bus in Toronto and Mississauga this week, is but one star in a small galaxy of events to mark 2009 as the International Year of Astronomy. The global celebration, initiated by the International Astronomical Union and the United Nations Educational, Scientific and Cultural Organization to mark Galileo's first glimpse at the moon through a telescope 400 years ago, has its official Toronto kick-off today, as proclaimed by Mayor David Miller.

Today's events include a free, all-day astronomy festival at the Ontario Science Centre (admission is still required for other OSC exhibits), followed by an evening launch party at the Gladstone Hotel on Queen Street West, whose hipster-ballroom-turned-planetarium will become home to sci-fi-inspired sculpture and medieval astronomy music, among other highlights.

If the cosmos suddenly sounds cool, that's precisely the point, says Ray Jayawardhana, associate professor and Canada research chair in observational astrophysics at the University of Toronto. Dr. Jayawardhana, 37, whose discoveries and science writing have made him a star among astronomers, dreamed up the ads and wrote the text himself.

He might earn his living with his head above the clouds, but RayJay, as colleagues call him, has made it his mission to keep his feet on the ground, where he can share his work with the rest of us.

"It's sort of a personal passion for me to make science much more of a normal part of culture," Dr. Jayawardhana said this week. "People talk about Canadian writers and Canadian bands. Why not Canadian science, at least once in a while?"

Take neutrinos, those tiny, uncharged particles of matter, which were first shown to oscillate at the Sudbury Neutrino Observatory early this decade.

Or the first-ever picture of a planet orbiting a sun-like star, 500 light-years from Earth, captured last spring by a U of T research team led by Dr. Jayawardhana.

Discoveries like these have helped Canadian astronomers maintain a global profile larger than their numbers might suggest.

Their research papers have been cited more often than those of any other country over the past 10 years, according to ScienceWatch.com.

This factoid - along with those in the ads, about how trillions of neutrinos pass through our bodies every second, or how lunar tides are slowing Earth's rotation and lengthening our days, or how human life would not exist if not for dead stars - bears repeating beyond the halls of academe, as Dr. Jayawardhana and other scientists, such as those at Waterloo's Perimeter Institute for Theoretical Physics, have come to believe.

"I would say that there's a growing appreciation for the value of doing this," Dr. Jayawardhana said. "I guess the challenge that I am particularly interested in, and that I find exciting, is how to do it differently and in a way that reaches well beyond the usual demographic."

He got a taste of Toronto residents' healthy appetite for science knowledge in 2005, a year after U of T scooped him from the University of Michigan, when he mounted a public lecture series and sold out the 1,500-seat Convocation Hall on four consecutive Friday nights.

"Ever since then, it's been on my mind," he said, referring to a way to reach even more people.

Enter the transit ads, which he dreamed up last year and pitched to friends on and off campus to great enthusiasm. Designed by an in-house graphic artist at U of T, each sign includes a prominent reference to <http://www.CoolCosmos.net> - a site set up by a volunteer U of T colleague - where those curious enough can view further text and listen to podcasts that expand on the facts in the ad.

The extra material was produced by veteran science writer Ivan Semeniuk, recently named journalist-in-residence at the university's Dunlap Institute for Astronomy and Astrophysics, whose interim director, Peter Martin, shares Dr. Jayawardhana's enthusiasm for public outreach.

"The idea is, you can't get half a million people into a lecture hall, so let's reach them where they are, even just for 30 seconds," Dr. Jayawardhana said. "The transit vehicles really give you a captive audience. I mean, I've taken the TTC many times, and you can see people looking around for something to read or to look at."

Like the subway, the uber-hip Gladstone is also no lecture hall, and thus the ideal venue to burnish the cool-cosmos image. Tonight's launch party, which begins at 8 and costs \$5, was arranged after Dr. Jayawardhana shared his passion for outreach over coffee with Joe Wilson, a member of the Treehouse Group, a local collective of thinkers from diverse backgrounds who meet for monthly talks and hold social events.

"He just jumped on it," he said of Mr. Wilson, who works as a high-school physics and science teacher and writes for Now and Spacing magazines.

Beyond the month-long ad series and today's launch events, future possibilities are, like space itself, limitless.

"What's next?" Dr. Jayawardhana wondered aloud. "We might still do a rock concert."

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Get your science geek on

Café Scientifique, hosted by the Ontario Science Centre, brings more questions than answers to the bar stool and table - but that's the fun of it. The next event, on Jan. 17 at the Rivoli, 334 Queen St. W., titled "Game On!," posits: Can game theory predict politics, the economy and dating strategies? 4 to 6 p.m.

*Nadja Sayej*

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## 2009 IS FOR THE STARS

This year is the International Year of Astronomy, marking the 400th anniversary of Galileo's development and use of the astronomical telescope. The official opening ceremony will take place in Paris, Jan. 15-16, with subsequent events around the world. In Toronto, Mayor David Miller has declared today "IYA Kick-Off Day," and is hosting a launch party at the Gladstone Hotel. Also today, the Ontario Science Centre is hosting a Toronto Astronomy Festival, in conjunction with its own 40th anniversary.

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