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Canada Looks Up, Way Up

By DENNIS OVERBYE

Those nice people up North are taking over the universe.

Yes, Canada, by at least one measure, is No. 1 in astronomy. According to a recent analysis by the Institute for Scientific Information in Philadelphia, which monitors scientific publications, Canadian astronomers deliver the most scientific bang for the buck. Their research is cited in scientific papers at a more frequent rate than astronomers from any other country.

Canadian astronomers wrote or were the co-authors of 4,836 papers in the last 10 years. These papers were referred to in other published papers 76,921 times, for an overall citation rate per paper of 15.91. That compares to 15.18 for the 49,000 papers by astronomers in the United States over the same period.

The figures were reported in February by the institute, a division of Thomson Corporation, and were celebrated last week at a news conference in Montreal. Canadian astronomers said they were not particularly surprised, pointing to a tradition that dates from 1910, when the 71-inch-diameter Plaskett Telescope in British Columbia was the world's largest. "We're getting better, and it shows," said Dr. Dennis R. Crabtree, an astronomer with the National Research Council Canada in Victoria.

Today Canada owns a share of the 142-inch-diameter Canada-France-Hawaii telescope on Mauna Kea, and of the Gemini Observatories, a pair of 315-inch-diameter telescopes in Hawaii and Chile.

Dr. Crabtree said he and his colleagues hoped to use the new rankings to shore up support for its share of efforts like the Thirty-Meter Telescope, a \$1 billion behemoth that would be nearly 100 feet in diameter.

"We're on a roll and we want to build on our strength," he said.

Others say, and the Canadians agree, that the citation rankings reflect, as well, Canadian closeness to American stargazers and telescopes, "good use of the friendly neighbor's stuff," as Dr. Robert Kirshner, a Harvard astronomer and the president of the American Astronomical Society, put it.

Last year's most popular paper, for example, with more than 1,058 citations, analyzed radiation left over from the Big Bang, as measured by NASA's WMAP satellite. Among the 17 authors was one from the University of British Columbia.

The rest were from the United States, resulting in credit for both sides of the border.