



# ASTRONOMY

**AT FIRST, CARTER RHEA THOUGHT HE'D MAJOR in German. Then, his interests turned toward geology and then math. And that's how he found his way to astronomy. "A lot of the math research that you do at the upper levels involves physics and astronomy, and I'm really interested in those fields."**

Carter's interest in astronomy led him to read a book on the controversy surrounding Stephen Hawking's claims regarding information loss. "That book convinced me that this was what I wanted to study. So, I approached a professor whose research focuses on black holes. He said he'd be happy to take me on

as a research assistant, and told me that I didn't need a background in this area, only a willingness to learn how to conduct the research."

Carter worked with that professor for two years while taking a full load of courses. "The research involves observations of super-massive black holes," he explains, "and my role included data analysis, reduction and interpretation. I had to learn many computational techniques as well as computer programming. These tools allowed me to analyze observations of a supermassive black hole taken with X-ray and optical telescopes and infer several important properties of the black hole such as the size of its accretion disk and its spin."

For Carter, a big advantage of studying astronomy at the College is that the liberal arts approach really complements scientific studies. "I like the idea of getting a well-rounded education. I want to be able to talk about everything knowledgeably -whether that's literature, science or history."

Not too long ago, he was able to do just that when he presented his research at a conference. "I spoke to a full audience who seemed to enjoy the presentation and come away with a good base understanding of my work." He later traveled to Madrid, Spain, to offer a poster presentation at a conference sponsored by the European Space Agency.

After he graduates from the College, Carter plans to attend graduate school. 📖



COLLEGE of  
CHARLESTON

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ASTRONOMY MAJORS ARE TAUGHT TO EXAMINE PHENOMENA BEYOND THE EARTH'S BOUNDARIES AND ASK CRITICAL QUESTIONS ABOUT WHAT THEY OBSERVE. OUR AWARD-WINNING FACULTY MEMBERS PREPARE THEM TO BE PROFICIENT IN ASTRONOMY THROUGH SPECIFIC COURSEWORK, AN EXPANSIVE MENU OF RESEARCH OPPORTUNITIES AND HANDS-ON EXPERIENCE USING THE DEPARTMENT'S FACILITIES, DEPARTMENT'S FACILITIES, WHICH INCLUDE AN ON-CAMPUS OBSERVATORY AND LABS AS WELL AS REGULAR USE OF A NETWORK OF TELESCOPES IN VARIOUS SITES AROUND THE WORLD AND IN SPACE. HERE'S YOUR OPPORTUNITY TO BECOME A CONFIDENT, INNOVATIVE THINKER WHO IS WELL PREPARED FOR SUCCESS.