

Dr. Sara M. Vaiana  
Assistant Professor  
Department of Physics  
ASU Tempe, USA  
Jan 29, 2011

Dear Selection Committee:

I am writing this letter to strongly recommend Matthew Brown for your scholarship/program. I have had occasion to meet and interact with Matthew during the fall semester of 2010, in my PHY150 course at ASU (Mechanics for Physics Majors). This is the first and undoubtedly the most important and challenging physics course for freshman students who enroll in our physics major's program. Among the various Physics I courses that our Department offers, it is the most demanding and selective and students who choose this course are generally highly motivated and above average. Even so, only 2/3 of the students who enroll generally make it through the end of the course. Success in this course largely determines whether a student will continue as a physics major or not. The course is designed to be interactive and is tailored for a small class of 25 students. It includes formal lectures (4 hours/week) including in class problem-solving performed in small groups and hands-on laboratory as an integral part of the class (2 hours/week). Students are required to hand in over 150 homework problems, 11 in class quizzes, and 10 individual laboratory reports in addition to in class problems and tests and optional puzzlers.

Matthew immediately stood out as an exceptional student, earning the only A+ in this year's class of 25 students. This is quite an accomplishment, considering that this year's class was an exceptional one. He is a serious, hard working, passionate student and his performance was outstanding throughout the whole semester, from in class problem solving to attentiveness in class, to homework assignments and laboratory activities. In all these activities he demonstrated an eagerness to learn and perform well that went beyond obtaining maximum grades in all assignments. His solutions to problems always contained rigorous logic deductions from first principles, as he justified the validity of the fundamental equations used and commented on the meaning of the final results. His quizzes, exams and laboratory reports were particularly well written and organized, and his data analysis thorough. Outside the classroom Matthew has repeatedly demonstrated a keen interest for advanced research topics and physics methodology at large. On a more personal note, he has a very pleasant, mature and responsible demeanor.

I think Matthew has all the qualities to become an outstanding physicist, and I have the sense that he would be particularly well suited for a career in research.

Please do not hesitate to contact me for further clarifications.

Sincerely,



Dr. Sara M. Vaiana