

**Jasmine Brewer**

Jasmine.Brewer@Colorado.EDU

Engineering Physics

Junior

Other awards:

CU Presidential Scholar

College of Engineering and Applied Science Merit Scholar

Jasmine's interests lie on the boundary between physics and pure mathematics. This interest was honed in the research she's done here and in Montana. In Dr. Paul Romatschke's Nuclear Theory group at CU, she has focused on writing and analyzing simulations of a strongly-interacting cold quantum fluid, the unitary Fermi gas. The group studies the properties of quark-gluon plasma, a newly-discovered material that is created in heavy-ion collisions. As she continues her work in this group, she hopes to contribute to the study of hydrodynamics in unitary Fermi gases and to improving the computability and accuracy of methods in fluid dynamics that will allow more effective simulation of quark-gluon plasmas.

In Dr. Ivan Smalyukh's group, she studied the interactions between particles suspended in liquid crystal materials. She is a coauthor on a paper that has been submitted to Physical Review Letters on this topic. She also became involved in writing simulations of liquid crystal dynamics.

In the Optical Remote Sensing Laboratory at Montana State, she worked with Dr. Joseph Shaw developing algorithms for zero-emissions imaging and research, for which she is a coauthor on a paper in preparation.

Her interests outside of research include skateboarding and music—she's a drummer and jazz enthusiast.

Jasmine plans to pursue a PhD in mathematical physics where she will conduct research in theoretical high energy or plasma physics.