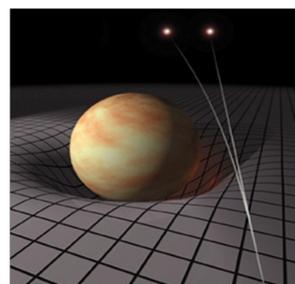
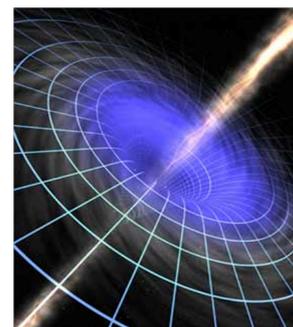


DON'T MISS THE MATH OPEN HOUSE FEBRUARY 21ST!!**SM450B: Beyond Space and Time, Written by MIDN Lauren Carson**
Winner of the Geometry and Relativity Math News Essay Contest!

Ever wondered if time travel is really possible and if a particle can ever travel faster than the speed of light? Or how about what really happens inside of a black hole? If the mysteries of space and time puzzle you and you are not content to just sit back and merely scratch the surface of understanding the forces and phenomenon's that shape the universe around us, than mathematics just may be your calling. In the mathematics course offered at the United States Naval academy, SM450B titled Geometry and Relativity, second and first class students study the theories and equations that comprise our modern understanding of General relativity. What is general relativity you might ask? General Relativity is the study of Einstein's theory on how gravity relates with the curvature of space time. Einstein's theories poked holes in the traditional Newtonian theory of gravitational force and began a journey that both significantly increased our understanding of the universe and space time, but also arouses our curiosity and makes us wonder just how much there is out there that we don't understand and what the implications would be if we could really uncover proof for ideas about wormholes and superstrings.



Just what will you learn about in General Relativity if you make the right choice and choose to study mathematics? You will understand how mathematicians and physicists describe a geometric shape using a metric, what curvature is and how to compute geodesics using tensor calculus. You will also learn about time dilation in space, yes the idea that time slows down and speeds up is not just a fairy tale, as well as length contraction, the structure and significance of a black hole, the existence of gravitational waves and so much more! If you are not content to just live in the world that is presented to you at face value then choose to become a math major! Step outside of the world as you have traditionally perceived it and step in to a world that arouses your curiosity and stretches your imagination!

Mathematics Faculty Profile

Captain Amanda Rasmussen graduated from the United States Air Force Academy in 2006 with a degree in Aeronautical Engineering with a minor in French. She earned a Graduate Sponsor Program scholarship from the Department of Aeronautical Engineering at USAFA and following graduation, studied Aeronautical Engineering at the Air Force Institute of Technology at Wright-Patterson Air Force Base. While at AFIT, she completed a thesis on optimization and controls of aircraft systems of a High Altitude Endurance Aircraft (HALE) in the flowfield of a the Air Force's existing refueling aircraft, the KC-135. Upon completion of her graduate studies, Captain Rasmussen reported to the Launch and Range Systems Wing, Space and Missile Systems Center at Los Angeles AFB where she spent 1 year as an avionics engineer for Delta IV rockets. Her next task as a rocket engineer was as the mission manager for the Wideband Global Satcom satellite WGS-3, which provides real-time weather and reconnaissance information to today's warfighter. Following the launch of the Delta IV rocket with the WGS-3 payload inserted into the perfect orbit, Captain Rasmussen took an assignment at the Naval Academy as a Mathematics Instructor. Her current career prospects bring her to applying to medical school with hopes of gaining admission for entering with the class of 2012.

