

HW 11. Due Mon April 12 by 5 p.m. by e-mail

**Problem.**

A 500 m long spaceship is moving with 90% of the speed of light relative to Earth. The two lasers send simultaneous (according to the space ship) flashes of light back to Earth - one from the front tip of the spaceship and one from the rear end. After some time, these signals are received by observatory on Earth. What will be the time difference between receiving these two signals on Earth?