# Bubble Chamber Design and Construction

## Project Description
Finding dark matter is a central problem of particle physics. One of the most promising methods to look for dark matter is a large bubble chamber operated deep inside a mine. The international PICO project has built several bubble chambers and currently holds the best limit for dark matter that carries spin. The student project involves working with the data of the PICO 40L bubble chamber and helping with the design and planning of the new PICO 500 detector.

## Faculty-Department
Science-Physics

## Desired Field of (Student) Study
Physics, Particle Physics, Engineering

## Internship Location
University of Alberta Main Campus - Edmonton

## Number of Internship Positions
2

## Internship Start Date
January 2, 2018

## Internship End Date
March 30, 2018

## Are the Dates Flexible?
Yes

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Contact: Brendan Cavanagh, Internship Coordinator (Inbound)  
University of Alberta International  
intern@ualberta.ca