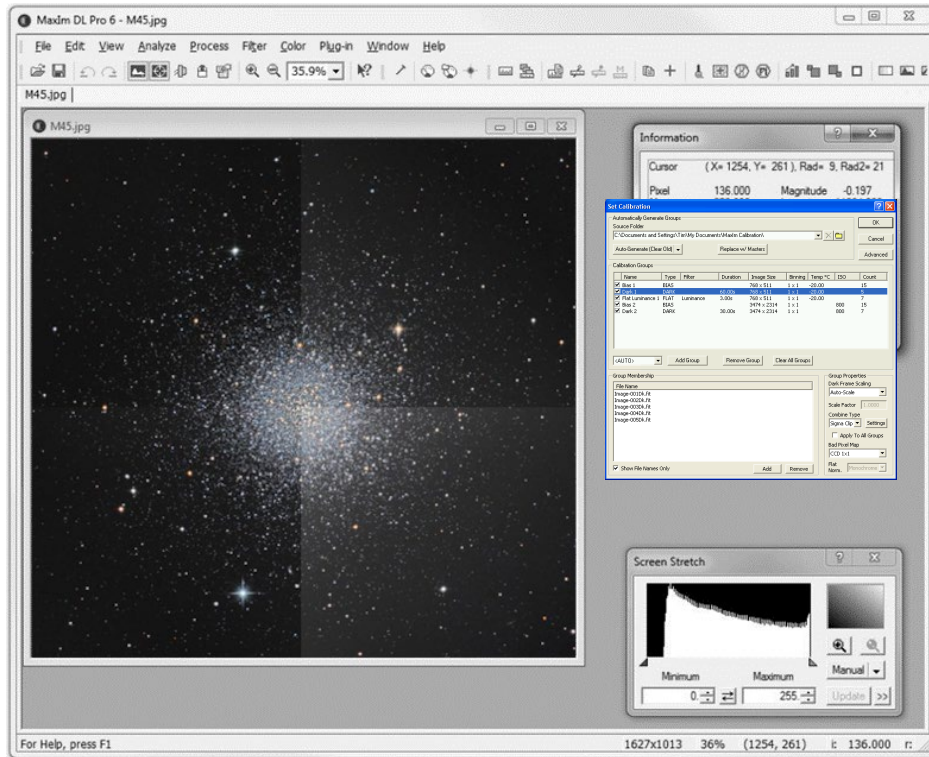


Software Development at



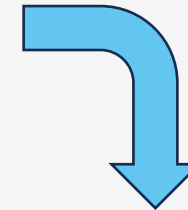
Theodore Grosson, University of Victoria



MaxIm DL software featuring image with sensor linearity defect

```
{c++}
#include <dlapi.h>
#include <iostream>
int main()
{
    dl::IGatewayPtr pGateway = dl::getGateway();
    pGateway->queryUsbCameras();
    if (pGateway->getUsbCameraCount() <= 0)
        return 1;
    dl::ICameraPtr pCamera = pGateway->getUsbCamera(0);
    pCamera->initialize();

    try
    {
        if (!pCamera) throw std::logic_error("No camera selected");
        dl::IPromisePtr pPromise = pCamera->queryStatus();
        dl::IPromise::Status result = pPromise->wait();
        if (result != dl::IPromise::Complete)
        {
            char buf[512] = {0};
            size_t lng = 512;
            pPromise->getLastError(&(buf[0]), lng);
            pPromise->release();
            throw std::logic_error(std::string(&(buf[0]), lng));
        }
        pPromise->release();
        return pCamera->getStatus();
    }
    catch (std::exception &ex)
    {
        throw std::logic_error(std::
    ...
}
```



```
#Python3
import PyDLAPI

gateway = PyDLAPI.getGateway()
camera = gateway.getCamera()
camera.initialize()
sensor = camera.getSensor()

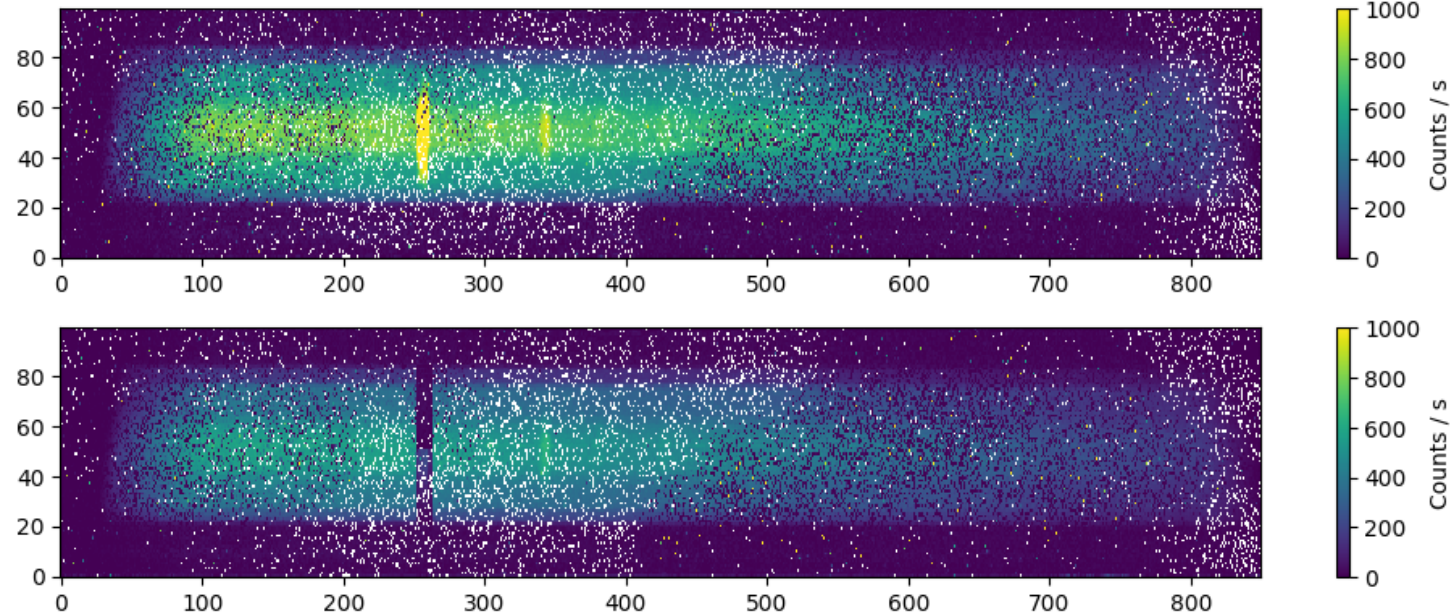
sensor.setSubframe(<params>)
sensor.startExposure(<params>)

image = sensor.getImage()

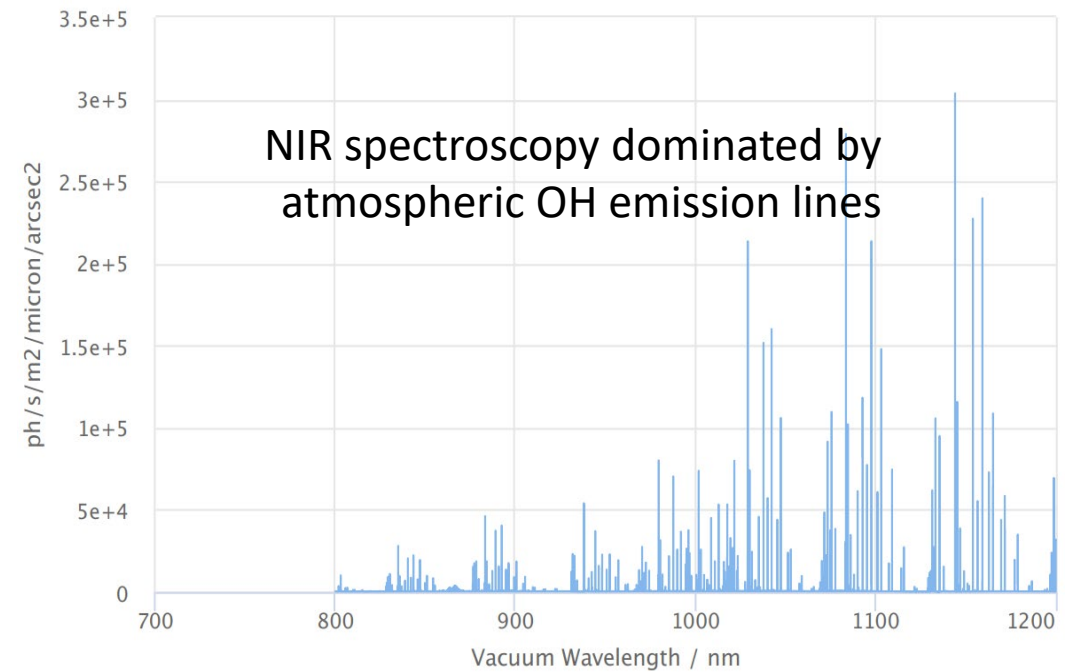
gateway.close()
```

Python wrapper of C++ camera control API

Now: Finishing MSc at UVic



Sample spectrum without (top) and with (bottom) resetting of lines before they can saturate



Cryostat installed on McKellar Spectrograph