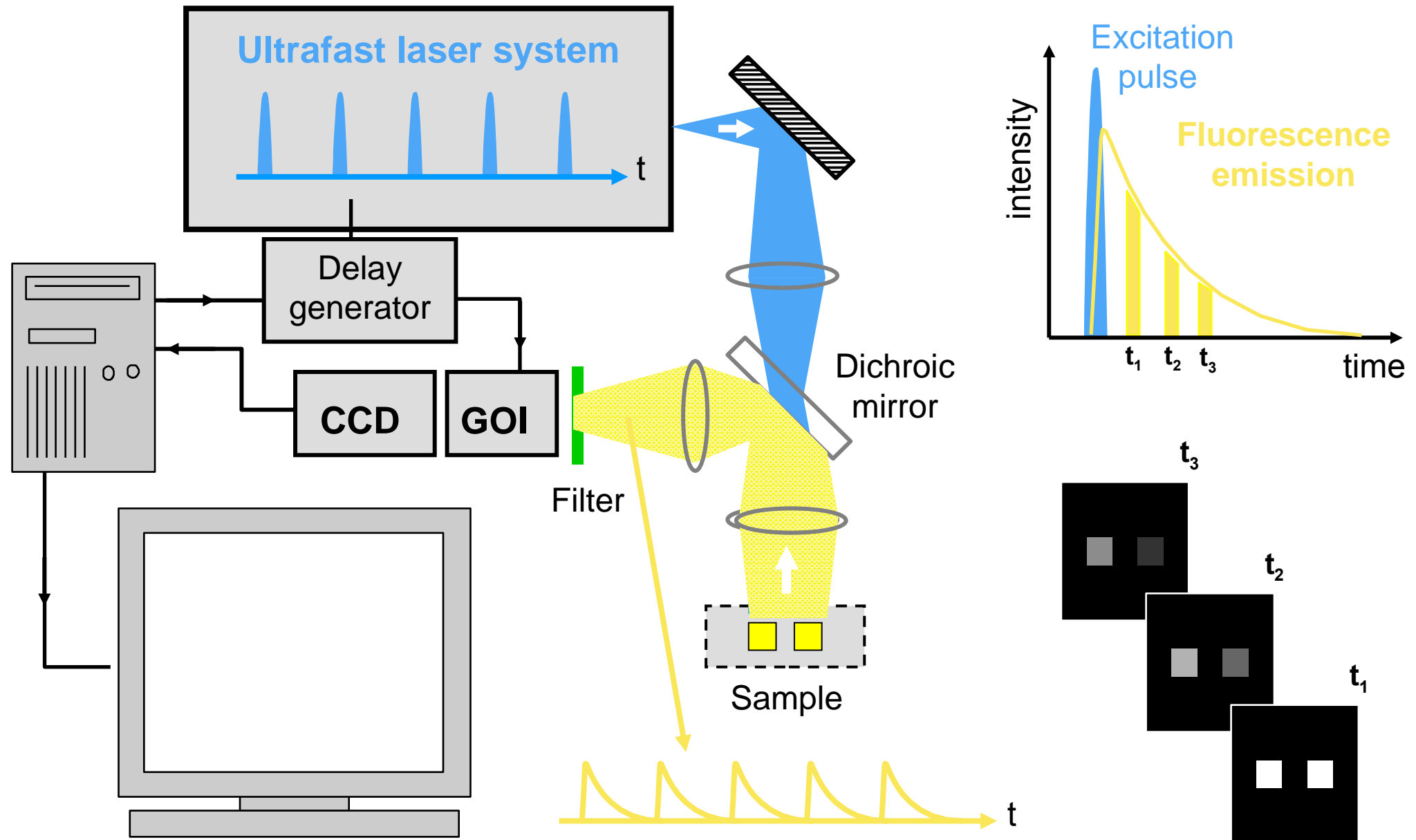


Fluorescence lifetime imaging (FLIM) & OMERO

1) Collect time-resolved data



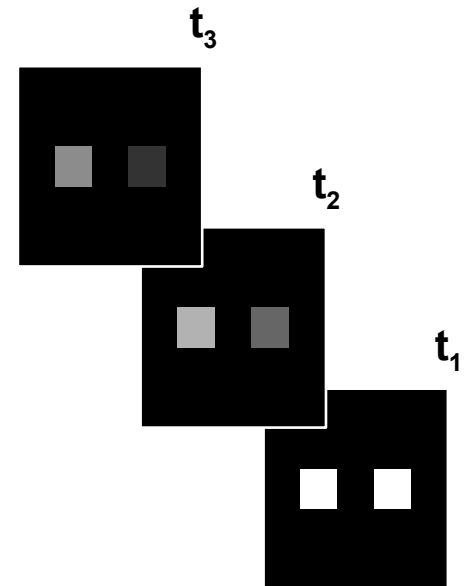
time-resolved data is simply intensity data with an extra dimension (NB t as opposed to real-time T).

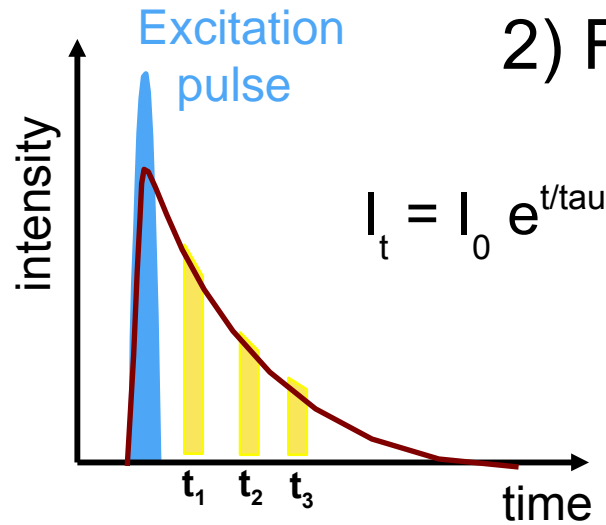
Possible OMERO issues:

Extra dimension.

Each xy plane is typically very dim. Summing along t provides a good thumbnail Modify insight?

Proprietary file formats.

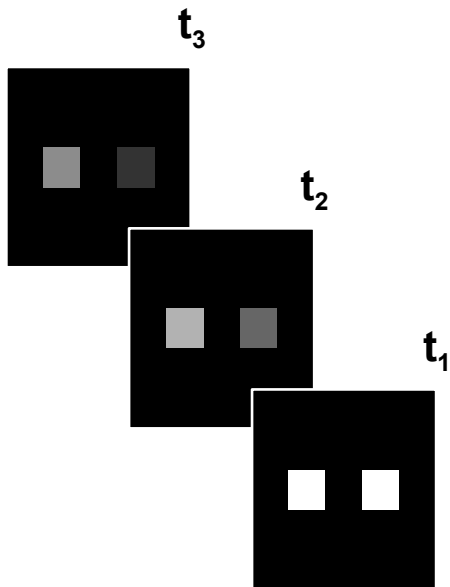




2) Fit a model to time-resolved data

This generates a parameter image (x y z C T) for each parameter in the model.

Possible OMERO issues:



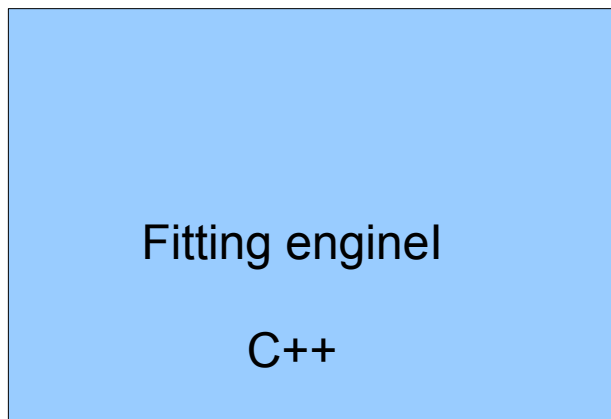
Extra dimension (p not t)

Not intensity! Parameters can have different units.

Display is complex? In Insight?

IC fitting software

Local client.



OMERO Server

3) Display

Typically the parameter map/s unhelpful.

Displayed encoding parameter/s into colour & intensity into brightness.

Accompanying histogram/s are helpful.

Final result is RGB image.

Possible that this approach might be applicable for other modalities ???.

Possible OMERO issues:

None. Phew!

Conclusions

- 3 different data types.
- Ideally existing clients would be modified to handle 2 of the 3
- file formats for import
- Distributing/testing fitting code.