The 10^{th} BCA/CCG Intensive Teaching School in X-Ray Structure Analysis

Trevelyan College
University of Durham
April 4^{th}–April 12^{th} 2005

Handouts

The handouts are included here at the request of the students who attended the course and are intended only as a learning aid. This page includes a list of the files giving some indication of which chapter they correspond to.

1. *Introduction to Symmetry and Diffraction* (**WJClegg1.pdf**)
2. *Space Group Determinations* (**WJClegg2.pdf**)
3. *Crystal Growth and Evaluation* (**AJBlake1.pdf**)
4. *Background Theory to Data Collection* (**JMCole1.pdf**)
5. *Data Collection* (**AJBlake2.pdf**)
6. *Data Processing* (**AJBlake3.pdf**)
7. *Fourier Syntheses* (**WJClegg3.pdf**)
8. *Patterson Syntheses for Structure Determination* (**WJClegg4.pdf**)
9. *Direct Methods of Crystal Structure Determination* (**PMain2.pdf**)
10. *An Introduction to Maximum Entropy* (**PMain3.pdf**)
11. *Least Squares Fitting of Parameters* (**PMain4.pdf**)
12. *Refinement of Crystal Structures* (**DJWatkin2.pdf-DJWatkin9.pdf**)
13. *Refinement of Extended Inorganic Structures* (**JSOEvans1.pdf**)
14. *Introduction to Twinning* (**SParsons1.pdf**)
15. *The Derivation of Results* (**SParsons2.pdf**)
16. *Random and Systematic Errors* (**SParsons3.pdf**)
17. *Interpretation of Results* (**SParsons3.pdf**)
18. *Presentation of Results* (No Lecture)
19. *The Crystallographic Information File (CIF)* (**AJBlake4.pdf**)
20. *Crystallographic Databases* (**AJBlake5.pdf**)

In addition, there are also files covering *"Mathematics Refresher"* (**PMain1.pdf**), *"Matrices for Beginners"* (**DJWatkin1.pdf**), *"International Tables"* (**WJClegg5.pdf**), *"Powder Diffraction"* (**IREvans1.pdf**) and *"Neutron Diffraction"* (**JKCockcroft1.pdf**).