

This lecture series is mainly based on the following papers, in particular, on (1) and (2):

- (1) **The p -group generation algorithm**
E. A. O'Brien
J. Symb. Comp. 9, 677–698, 1990
- (2) **Isomorphism testing for p -groups**
E. A. O'Brien
J. Symb. Comp. 17, 133–147, 1994
- (3) **Constructing automorphism groups of p -groups**
B. Eick, C. R. Leedham-Green, and E. A. O'Brien
Comm. Algebra 30, 2271–2295, 2002

It is *not* required to read these papers before the course; lecture slides will be uploaded *after* the lectures and can be found at

`http://users.monash.edu/~heikod/icts.pdf`

For further reading and general background, the following books might be useful (but are *not* required):

- (4) **Handbook of computational group theory**
D. Holt, B. Eick, and E. A. O'Brien
Chapman & Hall/CRC, 2005
- (5) **The structure of groups of prime-power order**
C. R. Leedham-Green and S. McKay
Oxford Science Publications, 2002