

Resources: References for the course

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Abstract

A bibliography for the *references* I plan to use in the course.

References for *Representations of finite groups*

- These notes (Milne n.d.) [Group Theory Notes](#) are available on-line; Chapter 7 contains a treatment of representations of finite groups.
- (James and Liebeck 2001)
- (Serre 1977)
- I hope to briefly discuss the Fast Fourier Transform, and I'll probably follow (Ceccherini-Silberstein, Scarabotti, and Tolli 2018) for that discussion.

References for *Error correcting codes*

- (Huffman and Pless 2003) is available electronically at [Tisch Library](#)
- (Ball 2020)
- These notes of Spence (Spence 2002) are [available here](#)
- (Tsfasman, Vlăduț, and Nogin 2007)

References for *Formalization of mathematics*

For our discussion of *proof assistants* and formalization of math, I'm going to use the Lean language; the Lean community web site is here: <https://leanprover-community.github.io/>.

Learning resources for Lean may be [found here](#). They include the following:

- (Avigad and Massot n.d.) [Mathematics in Lean](#)
- (Avigad et al. n.d.) [Theorem Proving in Lean](#)
- (MacBeth n.d.) [The Mechanics of Proof](#)

Bibliography

Bibliography

Avigad, Jeremy, Leondardo de Moura, Soonho Kong, and Sebastian Ullrich. n.d. "Theorem Proving in Lean 4." https://leanprover.github.io/theorem_proving_in_lean4/. Accessed January 11, 2024.

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- Ceccherini-Silberstein, Tullio, Fabio Scarabotti, and Filippo Tolli. 2018. *Discrete Harmonic Analysis: Representations, Number Theory, Expanders, and the Fourier Transform*. Cambridge Studies in Advanced Mathematics. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781316856383>.
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- Milne, J. S. n.d. “Group Theory.” <https://www.jmilne.org/math/CourseNotes/gt.html>. Accessed January 11, 2024.
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- Spence, S. 2002. “Introduction to Algebraic Coding Theory.”
- Tsfasman, Michael, Serge Vlăduț, and Dmitry Nogin. 2007. *Algebraic Geometric Codes: Basic Notions*. Vol. 139. Mathematical Surveys and Monographs. American Mathematical Society. <https://doi.org/10.1090/surv/139>.