

SEMINAR: TOPOLOGY OF 3-MANIFOLDS

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- Talk 1** (The loop Theorem and Dehn's Lemma, Raphael Reinauer). [1, §1-7] [6, §2.A] [2, Theorem 3.1] [4]
- Talk 2** (Bass-Serre Theory, Michael Weiss). [1, §2.1] and [5] [3, S. 91-96] for more details.
- Talk 3** (Ends of groups and Stallings' theorem, Johannes Ebert). [1, §2.2] and [6] for details.
- Talk 4** (The sphere theorem, Kevin Poljsak). [1, §2.4] and [6] for details.
- Talk 5** (The prime decomposition of a 3-manifold, Divya Sharma). [2, §1.1]. See also [4]
- Talk 6** (Torus decomposition I, Rudolf Zeidler). [2, §1.2]. See also [4]
- Talk 7** (Torus decomposition II, Georg Frenck). [2, §1.2]. See also [4]
- Talk 8** (Haken manifolds I, Robin Loose). [1, §4]. See also [4]
- Talk 9** (Haken manifolds II, Lukas Buggisch). [1, §4]. See also [4]

REFERENCES

- [1] D Calegari. Notes on 3-manifolds. available at https://math.uchicago.edu/3manifolds/3_manifolds_notes.pdf.
- [2] A. Hatcher. Notes on basic 3-manifold topology. available at <https://www.math.cornell.edu/hatcher/3M/3Mdownloads.html>.
- [3] Allen Hatcher. *Algebraic topology*. Cambridge University Press, Cambridge, 2002.
- [4] John Hempel. *3-manifolds*. AMS Chelsea Publishing, Providence, RI, 2004. Reprint of the 1976 original.
- [5] Jean-Pierre Serre. *Trees*. Springer Monographs in Mathematics. Springer-Verlag, Berlin, 2003. Translated from the French original by John Stillwell, Corrected 2nd printing of the 1980 English translation.
- [6] John Stallings. *Group theory and three-dimensional manifolds*. Yale University Press, New Haven, Conn.-London, 1971. A James K. Whittemore Lecture in Mathematics given at Yale University, 1969, Yale Mathematical Monographs, 4.

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