

Some references for computational topology

Nathan Dunfield's CompuTop website <https://faculty.math.illinois.edu/~nmd/computop/index.html>

Thurston "Three-dimensional manifolds, Kleinian Groups and hyperbolic geometry" 1982

Cameron Gordon "Dehn Surgery and 3-manifolds"

A blog on the subject of when manifolds can and can not be triangulated

<https://ldtopology.wordpress.com/2013/03/16/manolescu-refutes-the-triangulation-conjecture/>

Jeffrey Weeks "Computation of hyperbolic structures in knot theory"

SnapPy documentation <https://snappy.math.uic.edu/>

Matveev "Algorithmic Topology and Classification of 3-Manifolds"

<http://jeffe.cs.illinois.edu/teaching/comptop/2009/schedule.html#surfaces>

Manning "Algorithmic detection and description of hyperbolic structures on closed 3-manifolds 3-manifolds with solvable word problem" Geometry and Topology, 2002

N. Scoville "Discrete Morse Theory"

Matthias Aschenbrenner, Stefan Friedl and Henry Wilton

"Decision problems for 3-manifolds and their fundamental groups"

Some references on youtube

https://www.youtube.com/watch?v=ezo19L-JTTI&ab_channel=NathanDunfield

https://www.youtube.com/watch?v=Js4qwyIs-Oo&ab_channel=NathanDunfield

https://www.youtube.com/watch?v=bCYe_a48viA&ab_channel=NathanDunfield

https://www.youtube.com/watch?v=j8enbAkAvdY&ab_channel=NathanDunfield

https://www.youtube.com/watch?v=4jdmkUQDWtQ&ab_channel=PoincareDuality