APPLIED TOPOLOGY

Prof. Riccardo Piergallini

Lesson log

Lecture 1. (March 24, 2 hours)
Outline of knot theory.

Lecture 2. (March 31, 2 hours)
Introduction to braids.

Lecture 3. (April 7, 2 hours)
Configuration spaces and braid groups.

Lecture 4. (April 14, 2 hours)
Presentations of braid groups.

Lecture 5. (June 15, 2 hours)
Linear representations of braid groups.

Lecture 6. (June 21, 2 hours)
Hecke algebras.

Lecture 7. (June 28, 2 hours)
The Jones polynimial.

Lecture 8. (July 12, 2 hours)
Universal quantum gates.

Lecture 9. (July 20, 2 hours)
Braids and quantum computing.

Lecture 10. (August 4, 1 hour)
Braids and quantum computing.