Superscalar Processor

For this project you have to make a survey on superscalar processor architecture. This is the basic design that we use until today so you will find this project very interesting and informative. As you will see in the notes, it has recent case studies like the Pentium 4 and the Core architectures.

If you want to borrow books from the library some recommendations are:

1. Patterson D., Hennesy J., "Computer Organization and Design, The hardware/software interface", 5th edition.
2. Patterson D., Hennesy J., "Computer Architecture - A Quantitative Approach", 5th edition.

Major topics that are required to analyze are:

1. Processor design/implementations.
2. Tomasulo algorithm.
3. Parts of the processor.
4. Execution model.
5. Out of order execution.
6. Complexity / Timings.
7. Case Studies / Examples / Exercises / Results.
8. Anything else you might find interesting.