

**Mathematical Structures in Formal Methods, *MSFM***  
**Handout for Lecture 5 (2018/5/31)**

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## 1 Today's Lecture

Complementation of Büchi automata. Vardi, Section 2.4. Demri & Gastin, up to Section 1.2.

## 2 Supplement to the Last Lecture

On Safra's construction for translation from (nondeterministic) Büchi automata to (deterministic) Rabin automata, consult the following references.

- Dominique Perrin, Jean-Éric Pin: Infinite Words. Chapter 1 (pdf available on the authors' webpage)
- Markus Roggenbach: Determinization of Büchi-Automata. Automata, Logics, and Infinite Games 2001, LNCS 2500. Pages 43-60