

## Lecture 1: January 28

*Lecturer: Bruno Ribeiro**Scribes: scribe-name*

**Note:** *LaTeX template courtesy of UC Berkeley EECS dept.*

**Disclaimer:** *These notes have not been subjected to the usual scrutiny reserved for formal publications. They may be distributed outside this class only with the permission of the Instructor.*

This lecture's notes illustrate some uses of various L<sup>A</sup>T<sub>E</sub>X macros. Take a look at this and imitate.

## 1.1 Motivation

Explain the motivation. You can go beyond the motivation given in class.

### 1.1.1 Technique Name

Here is an itemized list:

- this is the first item;
- this is the second item.

Here is an enumerated list:

1. this is the first item;
2. this is the second item.

Here is how to define things in the proper mathematical style. Let  $\mathbf{u}$  be a vector,  $\mathbf{X}$  be a matrix or a tensor,  $Y$  be a random variable, and  $c$  be a constant. Example:  $Y$  is a multi-variate Normal distribution with average  $Xu$  and variance  $\Sigma$ :

$$Y \sim \mathcal{N}(Xu, \Sigma).$$

## 1.2 Next topic

Here is a citation, just for fun [CW87].

## References

- [CW87] D. Coppersmith and S. Winograd, "Matrix multiplication via arithmetic progressions," *Proceedings of the 19th ACM Symposium on Theory of Computing*, 1987, pp. 1–6.