LDA & Topic models

# Videos (1h each):

https://www.youtube.com/watch?v=7BMsuyBPx90 => Blei (Modeling Science: Dynamic Topic Models of Scholarly Research, Google Tech Talk 2007)

and give a look at the slides.

https://www.youtube.com/watch?v=DDq3OVp9dNA => Blei (Topic model, Stanford 2009)

# Reading:

Basics of LDA and topping modeling:

Blei, Probabilistic topic models. Commun. ACM 55, 77-84, doi:10.1145/2133806.2133826 (2012). #Good to start it's a review.

Blei, Ng, Jordan, Latent Dirichlet Allocation, Journal of Machine Learning Research 3 (2003) 993-1022. #First reference

Blei, Build, Compute, Critique, Repeat: Data Analysis with Latent Variable Models, Annu. Rev. Stat. Appl. 2014. 1:203–32

Get familiar with [Poisson](http://en.wikipedia.org/wiki/Poisson_distribution) and [Dirichlet](http://en.wikipedia.org/wiki/Dirichlet_distribution) distributions.

Further TM implementation:

Dynamic (continuous in time): Blei 2007, Wang, Blei, Heckerman 2012

Correlated (topic interaction): Blei and Lafferty 2007

Supervised (prediction): Blei and McAuliffe