

Readings

- Wilson, R. C., & Collins, A. G. (2019). Ten simple rules for the computational modeling of behavioral data. *eLife*, 8, e49547. <https://doi.org/10.7554/eLife.49547>
- Collins, A. G. E., & Shenhav, A. (2022). Advances in modeling learning and decision-making in neuroscience. *Neuropsychopharmacology*, 47(1), 104–118. <https://doi.org/10.1038/s41386-021-01126-y>
- Great illustrated read on methods to estimate value learning, by Sam Greydanus and Chris Olah: <https://distill.pub/2019/paths-perspective-on-value-learning/>
- Bayesian Methods reading list, by Tom Griffiths: <https://cocosci.princeton.edu/tom/bayes.html>
- Old but interesting blog article on Graphical Models and Bayesian Networks, by Keving Murphy: <https://www.cs.ubc.ca/~murphyk/Bayes/bnintro.html>
- Piray et al, (2019) Hierarchical Bayesian inference framework for model-fitting and comparison: <https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1007043>

Workshops and Tutorials:

- Class materials, including video, tutorials and code (Matlab) from Modeling the Mind by Bob Wilson: http://u.arizona.edu/~bob/web_NSCS344/
- Piray et al's *cbm* toolbox manual and tutorial (Matlab): <https://payampiray.github.io/cbm.html>
- Python based modeling that is more applied to social neuroscience <https://jose.theoj.org/papers/10.21105/jose.00146> with materials here: <https://shawnrhoads.github.io/gu-psyc-347/>
- More advanced modeling with a specific focus on Bayesian modeling: https://github.com/lei-zhang/BayesCog_Wien with videos here: <https://www.youtube.com/playlist?list=PLfRTb2z8k2x8ZCqDJ0WEFNs2ymXQCliLa>
- Also more Bayesian - Computational Models of Social Cognition: <https://comosoco.daeh.info/>
- CCN 2023 tutorial on using classical and deep learning approaches for cognitive modeling of behavior: <https://github.com/kstach01/CogModelingRNNsTutorial>, with video here: <https://www.youtube.com/watch?v=6cxX6M5VFYE&t=2837s>
- More videos and resources from CCN 2023 conference: <https://2023.ccneuro.org/program.php>

- Neuromatch Computational Neuroscience course:
<https://compneuro.neuromatch.io/tutorials/intro.html#>
- Materials from Computational Psychiatry Course:
<https://www.translationalneuromodeling.org/cpcourse/> (click on 'Material' tab for readings, lecture slides, videos and coding tutorials).