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# [Living document]

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# Outline.

1. Literature
2. Thesis (Theory testing?)
3. Research question
4. Method
5. Unfinished points

# Literature.


1. Baylis, K., Paulson, N. D., & Piras, G. (2011). Spatial approaches to panel data in agricultural economics: a climate change application. *Journal of Agricultural and Applied Economics*, *43*(3), 325-338.
2. Storm, H., Baylis, K., & Heckelei, T. (2019). Machine learning in agricultural and applied economics. European Review of Agricultural Economics.
3. Elhorst, J. P. (2014). Spatial panel data models. In *Spatial econometrics* (pp. 37-93). Springer, Berlin, Heidelberg.
4. Millo, G., & Piras, G. (2012). splm: Spatial panel data models in R. *Journal of Statistical Software*, *47*(1), 1-38.
5. Kelejian, H., & Piras, G. (2017). *Spatial econometrics*. Academic Press.
6. Mayfield, H., Smith, C., Gallagher, M., & Hockings, M. (2017). Use of freely available datasets and machine learning methods in predicting deforestation. Environmental modelling & software, 87, 17-28.

# Thesis.

- Are we aiming for a Theory testing?
  - Our experiment: With the Monte Carlo data test if we can predict deforestation patterns using machine learning.

# Research question.

"ML approach to predict deforestation patterns with Monte Carlo simulations"
?

GOOD

1.
2.
3.
4.

BAD

1.
2.
3.
4.

# Method.

1. Create Monte Carlo simulations (Spatial panel data sets)
2. Write testing process
3. Training data -> test -> adjust

# Unfinished points.

- Check literature about Brazil case
  - Get shapefiles for indigenous communities v/s non-indigenous
- Brazil reforms for 2008 -> monitoring & enforcement
- Add found papers to Forestry_ML folder