The Effect of Storm Events on Phosphorus Concentrations Influenced by Land Use in Lamoille River Tributaries

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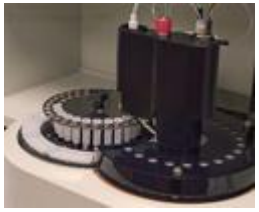
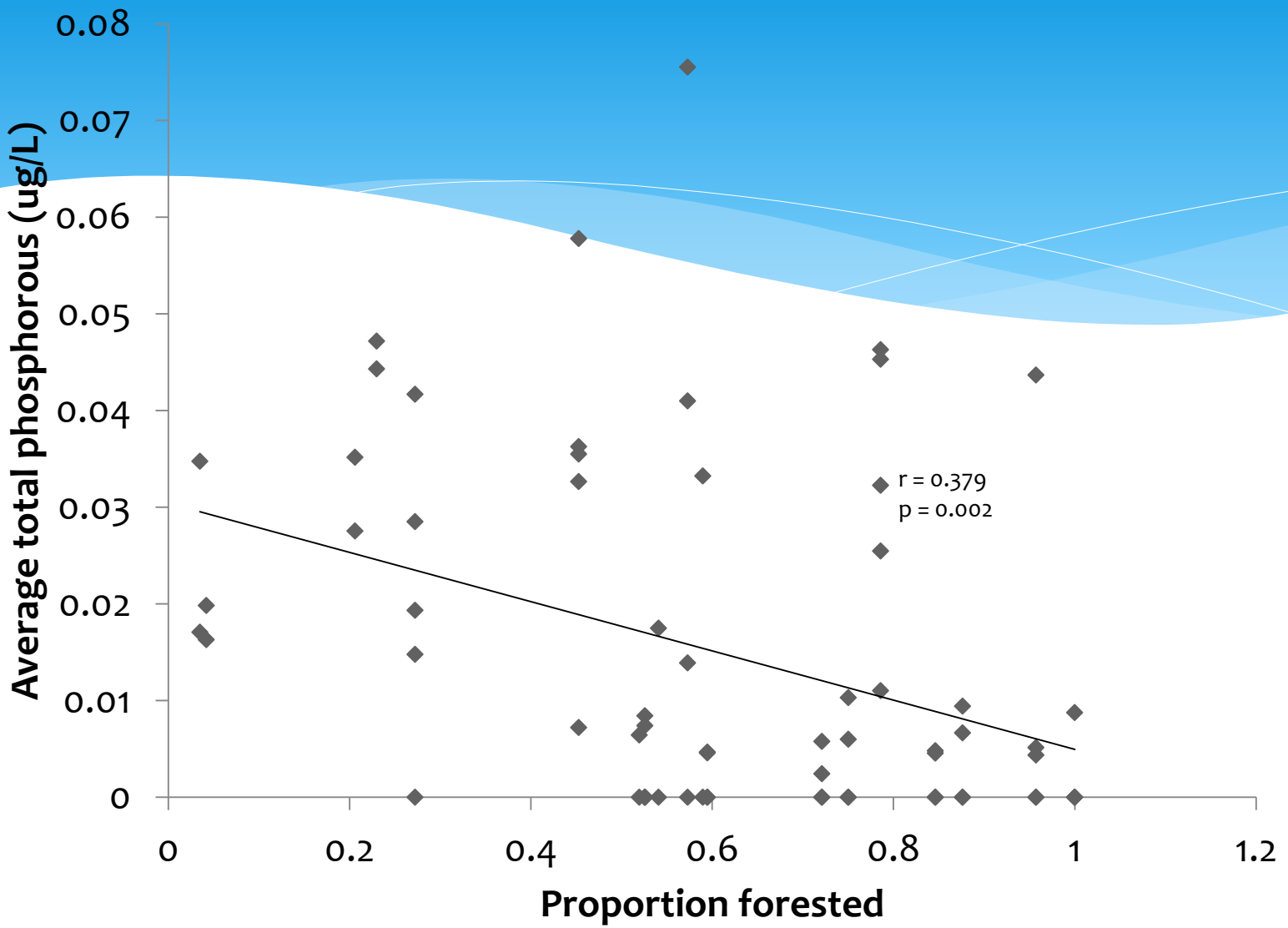
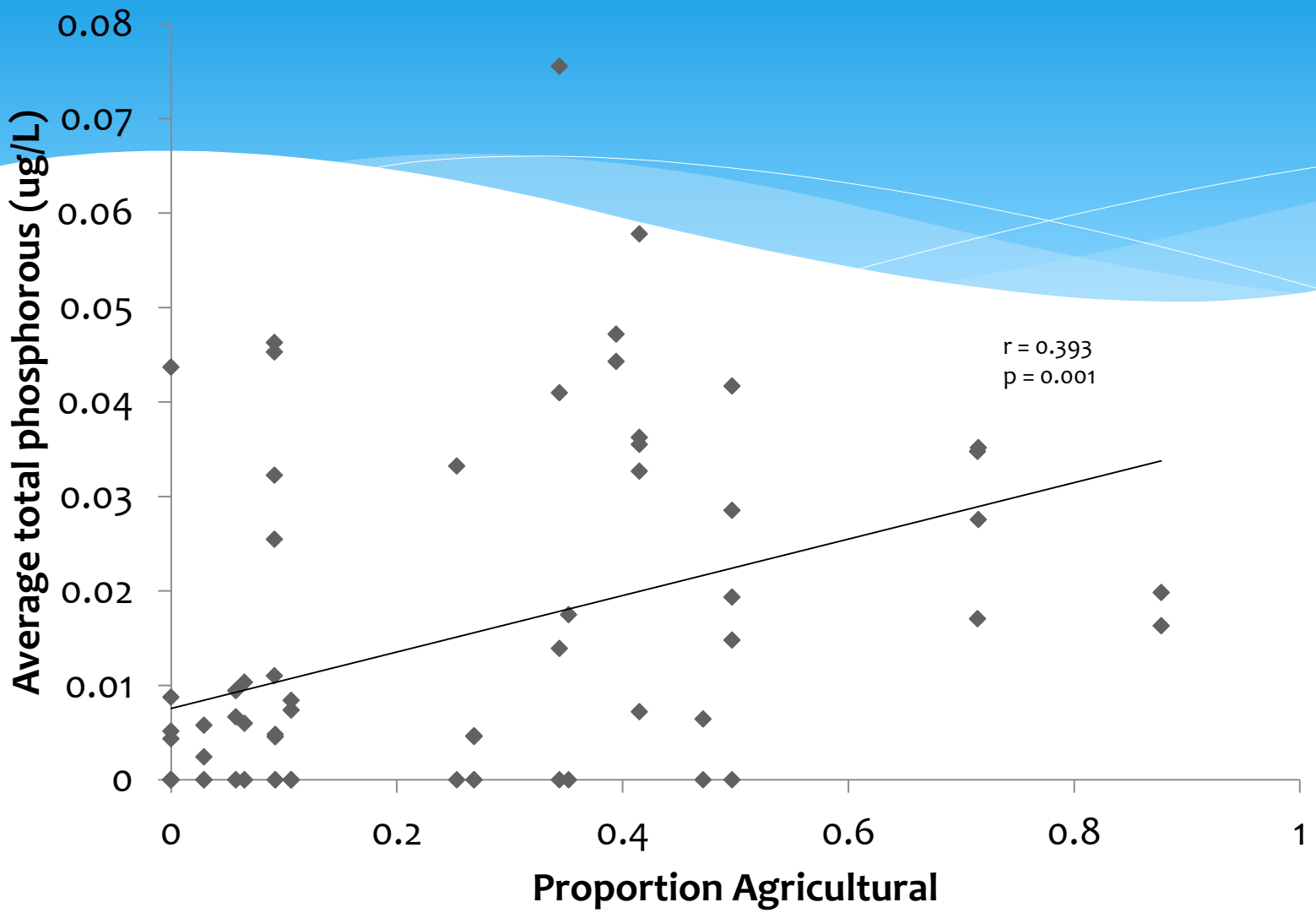
Introduction

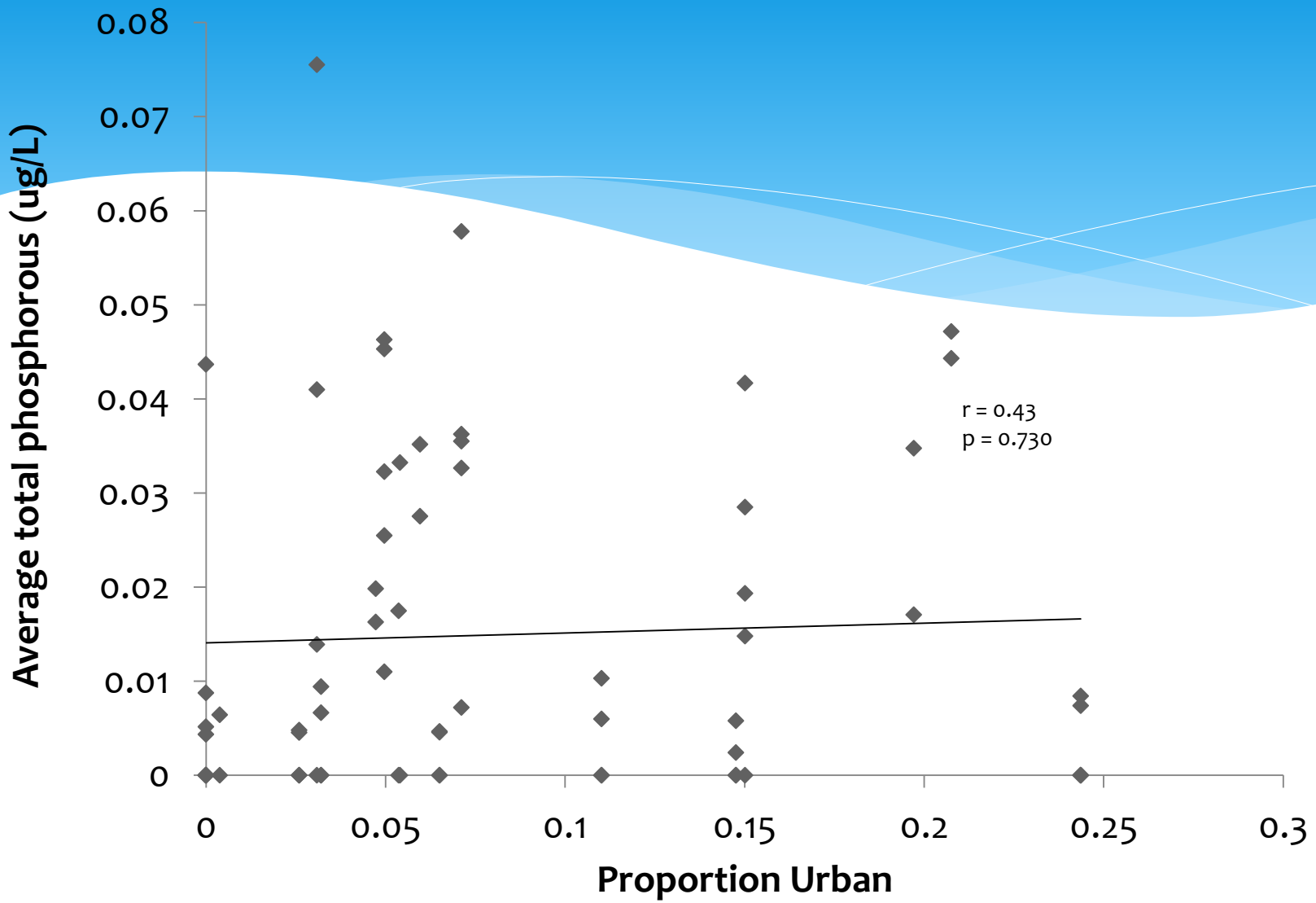
* Phosphorous is an element needed by all living things
* How does land use affect Phosphorous?
  * Forested
  * Agricultural
  * Urban

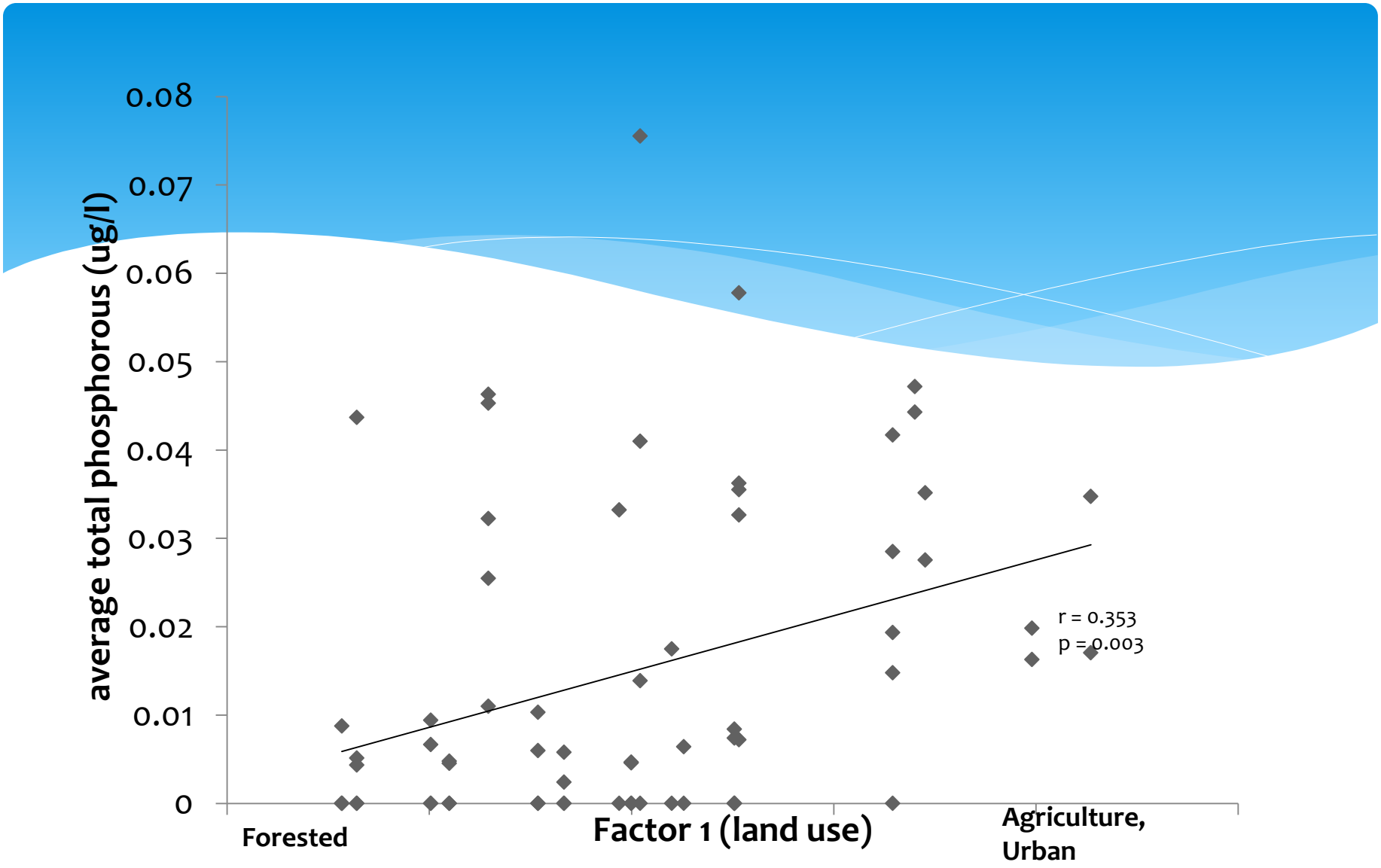
Method




0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
Average total phosphorous (ug/L)
r = 0.379
p = 0.002
0
0.2
0.4
0.6
0.8
1
1.2
Proportion forested


0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
Average total phosphorous (ug/L)
r = 0.393
p = 0.001
0
0.2
0.4
0.6
0.8
1
Proportion Agricultural


Average total phosphorous (ug/L)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
0.05
0.1
0.15
0.2
0.25
0.3
Proportion Urban
r = 0.43
p = 0.730


0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
average total phosphorous (ug/l)
r = 0.353
p = 0.003
Forested
Factor 1 (land use)
Agriculture, Urban

Conclusion

* There will be less phosphorous at forest streams sites
* Agricultural sites do have higher amounts of phosphorous
* There are too many variables affecting the amount of phosphorous in streams in urban areas to know if land use is a major factor.

Thank you!

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