SNACS - Peer Review:

Project title: **24. Link prediction in temporal networks**Project owners: **Julia Wasala, Elise van Wijngaarden**

Review written by: Patrik Hegel

Overall:

Great job, well-written paper in general. Easy-to-read, neatly formatted, definitely a good start to the project.

Further overall notes:

- very precise referencing
- neat format (maybe table positioning could be improved, but it is hard before the end of the project (imo))
- detailed related work discovery
- clear introduction and statement of the topic, with some examples
- in total a very intresting topic with good ideas added

Notes step-by-step for each section:

Introduction:

- typo: supermarket vs super market (?)
- related work in introduction?
- as you mention, a more detailed contribution would be nice to have in the introduction

Problem statement:

- example features and why they are used, e.g. just to introduce what a temporal topological feature is?
- (as you write with red:) formulas of logistic regression, clear definitions and notations of features, target, etc.

Approach:

- typo: pair ON nodes (pair of nodes):)
- sampled node pairs: more details about this: why this is necessary, time complexity reasons, how do you sample (why?)
- introduction of train and test set might better fit to experiments?
- the definition of AUC might be expanded a bit: why 1 is good and 0.5 is worse
- what is the total number of features used by logistic regr.?
- motivation behind using these features? what others could be useD? Why they are not?

Datasets:

- what kind of networks are these? from where? is it FB, intsa or what?
- what are the main differences between them?
- are the features have to be calculated by you?

Other:

- time complexity might depend on the number of features. How is that influences the training?
- runtime example? or is this not an issue here?
- Do you use an existing API or have to recode the algorithm?
- do you want to compare results with the original paper? are you sure you cant use the same datasets?
- Edge type in table 1 what is that?
- maybe some more figures? it feels hard to add any but maybe some explanatory pictures at the begining