



Propositions accompanying the PhD thesis

Cross-Subject Image Analysis in Diffusion Brain MRI

1. Macrostructural pathology should be taken into account when studying the independent contribution of white matter microstructure on disease. (*this thesis*)
2. Replacing the standard registration-projection approach in TBSS by optimized nonlinear registration improves structural alignment in brain diffusion imaging studies. (*this thesis*)
3. Investigation of tract-specific white matter microstructure provides insight in how risk factors affect microstructure in different tract categories. (*this thesis*)
4. White matter lesions in aging develop gradually and are preceded by microstructural white matter changes. (*this thesis*)
5. Microstructural deterioration of brain white matter observed in aging depends on anatomical location, cardiovascular risk factors and on age itself. (*this thesis*)
6. Performance indicators in healthcare and education should be used with caution as the risk for overtraining on these indirect measures is ever looming.
7. Methodological concerns and participant privacy do not obstruct the sharing of population imaging data.
8. Occam's razor applied to biomedical image analysis promotes collaboration and discovery: no method that works can ever be too simple.
9. Everyone travelling will benefit from learning a foreign language. Likewise, everyone using a computer will benefit from learning a programming language.
10. Workflow streamlining and standardization of quantitative imaging biomarkers will greatly speed up knowledge extraction from population imaging samples in the years to come.
11. We are stuck with technology when what we really want is just stuff that works. (*Douglas Adams*)