

To Mr Stoilov,

SaPPART short term scientific mission (STSM) on robust filtering methods

Dr Matti Raitoharju made a short term scientific mission at the Department of Signals and Systems (S2), between April 1 and 30, 2016. During his visit, Dr Raitoharju developed new estimation algorithms specifically tailored to challenging measurement updates in nonlinear filters. The new algorithms improve the estimation accuracy and consistency in problems that are difficult to handle for existing filters. His findings are potentially of great interest, since they may help to improve the robustness of nonlinear filters, smoothers and Gaussian message passing algorithms in a wide range of applications. We will continue working on these algorithms and hope to summarize our findings in a journal paper later this year.

Dr Raitoharju has also helped to solve technical issues with the implementation of another important algorithm called the expectation propagation (EP) algorithm. We expect to continue working on EP together in the future, since we regard this as another promising inference algorithm. In summary, Dr. Raitoharju's visit was highly successful and useful for all of us.



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