

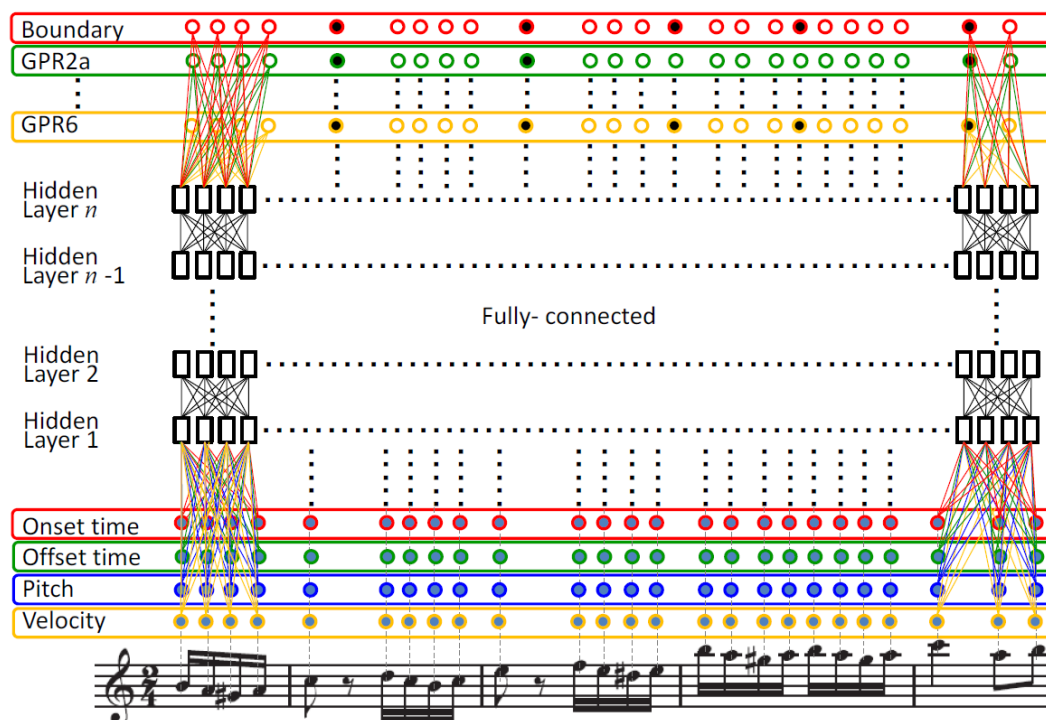
**Wednesday 6 December, 1pm – 2:30pm,  
Data Science Institute space, InfoLab 21, B78**

**Masatoshi Hamanaka**

(Music Information Intelligence Team leader, Riken, Tokyo)

with **Satoshi Tojo** (School of Information Science, Japan Advanced Institute of Science and Technology) and **Keiji Hirata** (Future University Hakodate)

## History and Perspective on Analysers for the Generative Theory of Tonal Music



We present recent progress towards reliable systems for analysis of music by computer, based on the Generative Theory of Tonal Music (GTTM, Lerdahl & Jackendoff, 1983). The GTTM theory, based on ideas of grammar from linguistics, captures aspects of musical phenomena with relatively rigid rules. However, it presents several problems for computer implementation. Over the past decade, we have proposed four types of implementation. ATTA (Automatic Timespan Tree Analyser, 2005) derived tree-structures for melodies by applying the rules of GTTM. This was later made fully automatic in FATTA (2007) which derived parameter weightings also. More recently, we have applied statistical learning to this problem in sigmaGTTM (2015) and deepGTTM (2016) with promising results.

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