

Jingchen Liu, Gongjun Xu, Zhiliang Ying

## arXiv.org > stat > arXiv:1106.0721

Statistics > Methodology

(Submitted on 3 Jun 2011)

**Models** 

We gratefully acknowledge supp the Simons Fo and member ins Search or Article-id (Help | Advan All papers **Download:** PDF PostScript Other formats Current browse cont stat.ME < prev | next > new | recent | 1106 Change to browse b math math.ST stat References & Citatio NASA ADS

Bookmark(what is this?)

ilence VISE

📃 💿 🗶 🚾 🖬 🚽 🔛

Subjects: Methodology (stat.ME); Statistics Theory (math.ST) Cite as: arXiv:1106.0721 [stat.ME] (or arXiv:1106.0721v1 [stat.ME] for this version)

Learning Item-Attribute Relationship in Q-

Recent surge of interests in cognitive assessment has led to the developments of novel statistical

models for diagnostic classification. Central to many such models is the well-known Q-matrix, which specifies the item-attribute relationship. This paper proposes a principled estimation procedure for

the Q-matrix and related model parameters. Desirable theoretic properties are established through

large sample analysis. The proposed method also provides a platform under which important

statistical issues, such as hypothesis testing and model selection, can be addressed.

Matrix Based Diagnostic Classification

**Submission history** 

From: Jingchen Liu [view email] [v1] Fri, 3 Jun 2011 18:06:06 GMT (26kb)

Which authors of this paper are endorsers?

Link back to: arXiv, form interface, contact.