NTCIR 11 MATH TASK

- NTCIR-11 Math Task

- Two major goals
  - Achieving reusable test collection
  - Establishing and supporting the Math IR community (mathematicians and IR&NLP researchers)

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- Dataset: Reuse and adapt NTCIR-10 dataset
  - 100,000 papers from ArXiv
  - 35M formulae
  - Retrieval unit: minimal subsections of ArXiv documents

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- Topic development
  - Topic structure
    - Topic ID
    - Query (formula + key words)
    - Description (short description of what a user is looking for)
    - Narrative (precise description of the user situation and information need and relevancy criteria)
  - All topics should include multiple relevant documents

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- Runs
  - Submit compulsory automatic runs using query only field
  - Encourage participants to submit manual runs (with manually generated queries)
  - Results will include supporting evidence (formulaID, sentenceID,etc.), optional

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- Pooling and assessment
  - 50 Topics
  - Multiple assessment (two) for inter agreement check
  - Pooling size: 100
  - Include “Relevant, Partially relevant, Non relevant, Can not be assessed”

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- Please join!
  - Contact: ntcadm-math@nii.ac.jp
  - ML: ntcir-math@nii.ac.jp
  - Community Site: http://ntcir.mathweb.org/
  - Web Page: http://ntcir-math.nii.ac.jp/

Home > Task Home **Task**: NTCIR-10 Math Task (EN), **Username**: admin Log out

Select a pool and then topic and you will see a list of potentially relevant documents to judge. For each document, judge re

Topic: NTCIR10-FS-5 [Formula Search Query] Derivative approximation

Pool: pool

Topic Details

Question (TrgLang) Derivative approximation

Information Need (TrgLang) $\frac{f(x+h)-f(x)}{h}$

Query words

Answer Type Formula Search Query

Document List:

[x] f095933#id79338
[x] f005076#idp16105712
[x] f056009#id67008
[x] f084809#id120008
[x] f050639#id60623
[x] f093556#id81682
[x] f050214#id54091
[x] f008232#id60483
[x] f022048#id53712
[x] f003698#id63751
[x] f074593#id61838
[x] f021585#id66555
[x] f098185#id56999
[x] f086627#id130041
[x] f008946#id53678
[x] f075613#id86622
[x] f019088#id71630
[x] f038931#id87832
[x] f018041#id55519

Sort by score, id, judgment

Relevance Judgment

<DOC>
<DOCNO>f095933#id79338</DOCNO>
<URL>0207/cond-mat.0207603/cond-mat.0207603.xhtml#id79338</URL>
<CONTEXT_LEFT>
h and the optical conductivity is obtained by a convolution of two full Green functions:
</CONTEXT_LEFT>
<MATH>
$$\int \mathrm{d}\omega \left(-\frac{f(\omega+\Omega)-f(\omega)}{\Omega} \right) \int \mathrm{d}\epsilon \rho_0(\epsilon)\rho(\epsilon,\omega)\rho(\epsilon,\omega+\Omega)$$
</MATH>
<CONTEXT_RIGHT>
where σ_0 is a constant and $f(\omega)$ is the Fermi distribution. The resistivity of the system
</CONTEXT_RIGHT>
</DOC>

○ Relevant ○ Partially Relevant ○ Not Relevant

Evidence: