THE MAKING OF A 3-D MATHEMATIC ADAPTIVE LEARNING SYSTEM

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Shanghai Institute of AI in Education, East China Normal University

Short description of the Thematic Afternoon: organizers, aims and underlying ideas

Type a short description of the organizers, aims and underlying ideas characterising your thematic afternoon activity here.

This session is organized by Professors Xiaoqing Gu, Aiming Zhou, Yan Zhu, and Chanjin Zheng from the Shanghai Institute of AI in Education at East China Normal University (ECNU). **Prof Xiaoqing Gu** is a professor of education from ECNU. **Prof Aiming Zhou** is currently a Professor, the vice dean with the Institute of AI Education, and the presiding vice dean with the School of Computer Science and Technology at ECNU. **Prof Yan Zhu** is an associate professor at ECNU. **Prof Chanjin Zheng** is an associate professor of educational psychology from the Shanghai Institute of AI in Education and the Department of Educational Psychology.

This session will present various aspects of a mathematic adaptive learning system developed by Shanghai Institute of AI in Education at East China Normal University. Prof Gu, will introduce the general blueprint of this system and give a demonstration of a beta version of this system. Then three presenters will further explain the three main elements of this system. Specifically, Prof Zhou from computer science will present the AI techniques including the algorithms for learning material recommendation, learning path planning, vision recognition etc. Prof Zhu, an expert in math learning and teaching, will explicate the instructional design for this system in which the knowledge, cognitive and affective aspects of the math learning (the three dimensions) are considered. Lastly, Prof Zheng, a scholar on computerized adaptive testing and cognitive diagnostic assessment, will talk about the design, techniques and implementation of various assessments in the system.

Planned structure:

Insert the planned structure of the Thematic Afternoon in the table below. You can insert rows if needed.

Planned timeline	Planned activity	Working format /Responsible person
2:00-2:30	The Math adaptive learning system demo	Speech/ Prof. Xiaoqing Gu
2:30-3:00	AI behind the math adaptive learning system	Speech/ Prof. Aiming Zhou
3:00-3:30	The instructional design for the 3-dimensional math adaptive learning system	Speech/ Prof. Yan Zhu
3:30-4:00	Adaptive assessments math adaptive learning system	Speech/ Prof. Chanjin Zheng
4:00-4:30	Questions/discussion	Discussion/all the presenters

Venue requirement:

Indicate the requirement of the venue capacity and facilities here.
这一栏可以用中文填写

说明：

1. 本表格请用英语填写，其所有内容将会放到大会网站上（场地要求除外）

2. 特色主题活动的描述和活动安排：**不要超出两页**

3. 如出现参考文献，请用如下格式：

References

4. 请在 **2021 年 4 月 30 日之前**将填写完成的表格的 WORD 版本和 PDF 版本发送至 **ICME14_TA@163.com**

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