

## **Discussion Group: Psychology of Computer Science Education**

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Compared to Mathematics Education research, Computer Science Education (CSE) research is still in its infancy. Especially, the domain of Psychology of Computer Science Education (PCSE) lacks enough research; hence no specific community has been formed yet. But many domains of CS are mathematical in nature (e.g. the computational ones), and thinking in these domains is mathematically oriented. In fact, these domains of CS originated in mathematics. Thus it has been a few years now that PME is also the community of PCSE researchers. It has already been shown that PME theoretical and research background is adequate for PCSE (e.g. Aharoni & Leron, 1997). PCSE researches use PME theories like the Actions-Process-Object model (Sfard, 1991), theories on the role of affect (McLeod, 1989) etc., to name just a few. Papers on PCSE were presented in several conferences including PME (e.g. Aharoni, in press; Kynigos, 1995; Levy & Lapidot, 2000).

From past PME conferences we know that there were other PME members interested in the mathematical aspects of the PCSE domain. We would like this discussion group to be an opportunity for these people to share their experience in PCSE research, and discuss issues like:

- ◆ What is mathematical about learning computer science?
- ◆ Which PME theories were found adequate for PCSE?
- ◆ Which theories or parts of theories are specific to PCSE, beyond the scope of PME?
- ◆ What are the questions and issues PCSE should address?
- ◆ What are the CS domains or sub-domains that are adequate for PCSE research?
- ◆ What PCSE studies were done up to now?
- ◆ What PCSE studies should be done in the future?

### **References**

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