

Physiological Modeling for Clinical Use

A special topic within Track 11.2 Healthcare Decision Support Systems

Call for papers

The IEEE 2006 International Conference of the Engineering in Medicine and Biology Society solicits papers on physiology-based modeling to support the health care provider in their clinical decisions. The use can be specific but not limited to a:

- Health care provider (nurse, physician assistant, generalist, specialist, etc.)
- Disease (congestive heart failure, asthma, acute renal failure, stroke, etc.)
- Location (hospital ER/ICU/room, home, office, etc.)

It is desirable for the paper to show:

- Interaction/link between medical and research (academic or industrial) institutions
- Steps taken toward clinical implementation of the modeling work

This session is within Track 11.2 (Decision Support Systems), and hence physiological models providing *support* for clinical decisions – not only decisions – are sought.

Models based on data from patient databases and other knowledge sources can provide statistical and probabilistic information. A physiological model aims to emulate the normo- and patho-physiology of a patient in a deterministic way, where parameters and variables have direct physiological significance. Its outputs can carry disease diagnosing/prognosing information, which can provide support to the physician for the best therapy decision. The model may be part of / run with a non-physiology-based decision support system.

Considerations taken during the modeling effort to accommodate for clinical usage ought to be included: which variables to display, constraints, acceptance, issues related to data for validation/testing, complexity/linearity/adaptivity, multi-variable formulation, real-time application, implementation platform (medical device/system, testbed), etc.

IMPORTANT special paper submission instructions: Submit your paper using the conference web site indicating the **primary keyword** as “**Healthcare Decision Support Systems.**” This is necessary to ensure the paper is reviewed properly.

Four Page Paper Submission April 3, 2006

Notification of Acceptance June 15, 2006

Theme 11	Clinical Engineering and Healthcare Information Systems
Track 11.2	Healthcare Decision Support Systems
Sub track	Physiological Modeling for Clinical Use

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