Increasing levels of integration for complex systems creates enormous challenges for achieving design success. A continuing challenge for System-on-a-Chip development and verification is to apply behavioral modeling and simulation, through the use of standardized languages such as VHDL-AMS and Verilog-AMS, to address the increasing size and complexity of these designs. Behavioral models and simulation techniques help to capture functional information, making them useful to researchers studying synthesis, to other designers needing functional blocks, and to facilitate testing of systems prior to their completion. The workshop will make use of presentations, panel discussions, and embedded tutorials to present the latest trends. BMAS2004 will also include a poster session, to encourage submission from students and to foster BMAS participant interaction. The workshop emphasizes the use of simulation and modeling techniques that cover several levels of abstraction (i.e. circuit to system), address multi-disciplinary problems (mixed-signal or mixed-technology), or address emerging areas of interest (i.e. RF techniques, MEMS, biological systems, automatic extraction of models).

**Topics of interest:**
Contributions are invited from all areas of behavioral modeling and simulation including, but not limited to:

* Approaches to simplify, accelerate, automate, or verify the process of creating behavioral models.
* Approaches to simplify, accelerate, or automate the process of synthesizing an implementation from behavioral models.
* Application of behavioral modeling and simulation in new ways that improve the overall design process.
* New modeling languages or extension of existing languages to provide substantial new modeling or simulation capabilities or to address new application areas.
* New approaches to implementing behavioral modeling languages or simulation techniques that provide better performance or that enable new behavioral modeling techniques.
* Novel behavioral models, modeling and simulation techniques, particularly for new application areas.
* Approaches to implementing behavioral languages and simulators that cross domains, such as mixed signal types (continuous, discrete event, repetitive cycle, etc.), mixed technology, mixed discipline, mixed lumped and distributed, mixed time scale (fast and slow), mixed scale (big and small), etc.

**Submission and review procedure:**
The technical program committee invites original submissions in these areas. Each submission should be made electronically using PDF format. The submission should include a 50-100 word abstract as well as a full paper. The abstract should clearly state the contribution of the paper. See [www.bmas-conf.org](http://www.bmas-conf.org) for detailed instructions. Interested speakers should submit the requested information to the program chair or by electronic submission to the BMAS website. The IEEE will publish the proceedings.

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