

Introduction to Session B3

V&V for M&S with Human Behavior Representations or People in the Loop

The session has two distinct parts. One deals with simulations that **require the participation of actual people to produce their results**. Often such simulations are called *simulators*. Man in the loop, human in the loop, and human in control are other terms sometimes used for such simulations. Current Department of Defense terminology uses *virtual* and *live* for such simulations (with the later referring to distributed simulations that involve real systems and virtual for distributed simulations that only involve simulators). These kinds of simulations are contrasted with *constructive* simulations which do not involve people, but **whose behavior is completely defined by their software**. The paper addressing this kind of simulation uses aircraft simulators to illustrate the state of V&V for simulations that involve people: *Validation Of Advanced Flight Simulators For Human-Factors Operational Evaluation And Training Programs*.

The other **half of this session** deals with simulations that explicitly represent **some aspects of human behavior**. Often the acronym HBR, for human behavior representation, is used to describe **these** simulations. The paper addressing this topic is *Validation of Human Behavior Representations*.

We felt it wise to treat these two kinds of simulations separately since the state of the V&V art is so different in them. Some simulations, especially distributed simulations, may involve both simulators and HBRs, in which case, the insights from both of these papers are needed.

There are other ways that people are involved in some simulations. One of these that is important from a V&V perspective is as controllers of simulation processes. In simulation supporting war games, for example, sometimes people modify or control simulation results and processes in order to facilitate support of the application objectives, although in some cases the same effect can be achieved simply by adjusting simulation inputs and does not require the human intervention during the simulation run. The invited papers for this session do not address this kind of people in the loop aspect of simulation V&V explicitly.