

Supercomputing Challenge Judging Criteria (Expo-Poster Session)

Evaluation Criterion	How to Score (0 to 10 points)
Problem Statement (Weight 15%) <input type="checkbox"/> Was a scientific or mathematical problem clearly defined? <input type="checkbox"/> Was the problem clearly thought out and well researched? <input type="checkbox"/> Is it a complex problem or could it be solved on a calculator or with off-the-shelf applications (Excel)?	0 – problem not defined 1 – vaguely defined problem 3 – problem not clearly defined AND background information lacking 5 -- problem not clearly defined OR background information lacking 8 – problem clearly defined AND background information is appropriate and complete 10 – complex problem clearly defined with appropriate and complete background information
Mathematical/Algorithmic Model (Weight 25%) <input type="checkbox"/> Is the mathematical model accurate (or a reasonable approximation)? <input type="checkbox"/> Is an algorithmic model reasonable (agent-based problem and/or mathematically intractable problem)? <input type="checkbox"/> Is the model correctly applied to the problem and its solution? <input type="checkbox"/> Does the team understand the model, its equations, and variables?	0 – no model 1 – basic model, but team doesn't understand it 3 – basic model, team understands it, but cannot answer questions about it 5 – basic understanding of model, but unable to answer questions about it 8 – basic understanding of model; some understanding of equations, variables, etc. 10 – complex model thoroughly understood
Computational and/or Agent-Based Model (Weight 25%) <input type="checkbox"/> Is the computational model appropriate for the project? Are the assumptions/limitations of the model documented? Does the model require multiple iterations or samples to identify an optimum solution or range of solutions? <input type="checkbox"/> Is the agent-based model a reasonable representation of the problem? Does the model correspond to a well-known mathematical model? If so, was the mathematical model used to validate the agent-based model? Does the model provide insight into the problem? Can anything be learned from the model? Does the team understand the agent's states and behaviors, and the role of the environment? In particular, does the team understand how the agents affect each other and/or modify their environment?	0 – no model 1 – basic model, but team doesn't understand it 3 – basic model, team understands it, but cannot answer questions about it 5 – basic understanding of model, but unable to answer questions about it 8 – basic understanding of model; some understanding of algorithm and programming syntax 10 – complex model thoroughly understood
Results & Conclusions (Weight 15%) <input type="checkbox"/> Are the results reasonable and verifiable? <input type="checkbox"/> Were logical conclusions drawn from the results? <input type="checkbox"/> Do the conclusions relate to the stated problem?	0 – no results or conclusions 5 – results, but conclusions are incomplete or illogical 10 – reasonable results with logical conclusions that relate to the stated problem
Code (Weight 10%) <input type="checkbox"/> Was code shown? <input type="checkbox"/> Was a real-time demo shown?	0 – none 1 – code does not execute 3 – code is incomplete OR is a simple calculation that does not require a computer 5 – code is not original OR is undocumented 8 – code is original AND well documented 10 – original, documented code with real-time demo
Display (Weight 10%) <input type="checkbox"/> Was the display logical and well organized? <input type="checkbox"/> Were the presenters knowledgeable? <input type="checkbox"/> Were questions handled gracefully?	0 – none 3 – display does not support the project, is incomplete, or is not visually pleasing 5 – a good display with some problems 10 – a professional quality display

Supercomputing Challenge Project Evaluation (Expo-Poster Session)

Team #: _____

Judge: _____

Comments	Score (0 to 10)
Problem Statement (Weight 15%)	
Mathematical/Algorithmic Model (Weight 25%)	
Computational and/or Agent-Based Model (Weight 25%)	
Results & Conclusions (Weight 15%)	
Code (Weight 10%)	
Display (Weight 10%)	

Note: A copy of the completed form will be provided to each team.