

Faculty of Mathematics and Computer Science
The Weizmann Institute of Science
announces the tenth

Prof. CHAIM LEIB PEKERIS
MEMORIAL LECTURE
to be delivered by

Professor Judea Pearl
Computer Science Department, UCLA

Sponsored by the Arthur and Rochelle Belfer
Institute of Mathematics and Computer Science

The title:

Reasoning with Cause and Effect

On Sunday, June 8, 2003, at 4:00 p.m.
in the Dolfi and Lola Ebner Auditorium, on campus
A reception in honor of Prof. Pearl
will be held after the lecture

Abstract

The talk will review concepts, principles, and mathematical tools that were found useful in applications involving causal reasoning. The principles are based on structural-model semantics, in which functional (or counterfactual) relationships, representing autonomous physical processes are the fundamental building blocks. This semantical framework, enriched with a few ideas from logic and graph theory, enables one to interpret and assess a wide variety of causal and counterfactual relationships from various combinations of data and theoretical modeling assumptions. These include:

1. Predicting the effects of actions and policies
2. Identifying causes of observed events
3. Assessing direct and indirect effects
4. Assessing the extent to which causal statements are corroborated by data
5. Assessing explanations of events in a specific scenario.