



FIGURE X1. Cause-and-effect interactions (actions/reactions: to step forward one needs to push Earth backward) transfer and conserve momentum (*Newton's Laws*) and in time propagate within interacting particles/systems, but also conserve energy. If momentum is locally randomized (in all directions) and thus balanced, i.e., stored as thermal energy (with net-zero momentum) within particle structure, its original directional usefulness is dispersed to vast surroundings and thus 'lost' and unavailable locally.