

°ashing the potential, the saw-tooth potential is repeatedly brought in contact alternately with a heat bath of low temperature and a heat bath of higher temperature. In this case the ratchet works analogously to the Carnot engine. It is also worth pointing out that in this case of °ashing ratchet and in the earlier case of rocked ratchet the particle moves in a homogeneous medium with constant friction coefficient. Inhomogeneous media are not uncommon, however. For example, con- ned geometries, presence of surfaces (discontinuities), etc., make a medium inhomogeneous. It is worth exploring if inhomogeneity itself can be exploited to advantage.

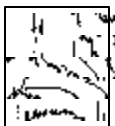
Suggested Reading

- [1] J Maddox, Making models of muscle contraction, *Nature*, Vol. 365, p. 203, 1993.
- [2] J Maddox, More models of muscle contraction, *Nature*, Vol. 368, p. 287, 1994.
- [3] J Maddox, Directed motion from random noise, *Nature*, Vol. 369, p. 181, 1994.
- [4] R D Astumian, Thermodynamics and kinetics of a Brownian motor, *Science*, Vol. 276, p. 917, 1997.
- [5] M Bier, Brownian ratchets in physics and biology, *Contemp. Phys.*, Vol. 38, p. 371, 1997.
- [6] F Jülicher, A Ajdari and J Prost, Modeling molecular motors, *Rev. Mod. Phys.*, Vol. 69, p. 1269, 1997.
- [7] P Reimann, Brownian motors: noisy transport far from equilibrium, *Physics Reports*, Vol. 361, p. 57, 2002.
- [8] A M Jayannavar, cond-mat. 0107079.
- [9] For Parrondo's games, see G P Harmer and D Abbott, *Nature*, Vol. 402, pp. 22, (1999); or search under "Parrondo's games" or "Parrondo's paradox" at <http://www.google.com>.

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It was absolutely marvelous working for Pauli. You could ask him anything. There was no worry that he would think a particular question was stupid, since he thought all questions were stupid.

Victor Frederick Weisskopf
Austrian physicist.

