

problems". An example is image processing where one tries to reconstruct the original and not just any acceptable optimal solution or image. One of the most spectacular applications is the interpretation of seismic data by Rothman [6]. He was able to reconstruct the geological structure of a terrain from information on the propagation of sound waves. Other impressive applications involve the reconstruction of three-dimensional objects from two-dimensional images in tomography, and the deblurring of binary images.

Conclusion

Simulated annealing offers a rather general approach to time-consuming problems. This is on the one hand its strength but on the other hand also its weakness. That means problem-oriented heuristic approaches may exist which are hard to beat. The general rule seems to be: the more money at stake in the solution of a particular problem, the better is the existing heuristics. This is certainly the case in chip design, where a general breakthrough for simulated an-

nealing has not happened so far. But further research aims at this goal [4]. For a huge variety of less popular problems, simulated annealing is the way to proceed. In such a case, I encourage the reader to try my recipe. If the problem turns out to be "spin-glass-like", a comparatively good solution can be obtained for an optimal state. The future of simulated annealing certainly lies in the large variety of such problems waiting to be discovered in all branches of science, technology and economics.

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