Aspects of turbulent convection in stars
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Turbulent convection can be described with the mathematical
formalism of nonlinear dynamics. This leads nearly automatically
ly to the term "deterministic chaos".
But turbulent convection can also become suddenly "self-organi-
se", in this case chaos is the wrong word.
"Intermittency is another phenomenon, which has to be checked
carefully. With this term we describe the fact, that a turbu-
ulent convection becomes laminar again, remaining in this status
for some time, then converting back to become turbulent again.
Three examples from astrophysics have been chosen to explain
turbulent convection in detail:

- pulsating stars
- the dynamo of the sun
- the granulation of the sun