Extended Theories of Heat Conduction

Thermodynamic Boundaries and Fundamental Dynamic Stability

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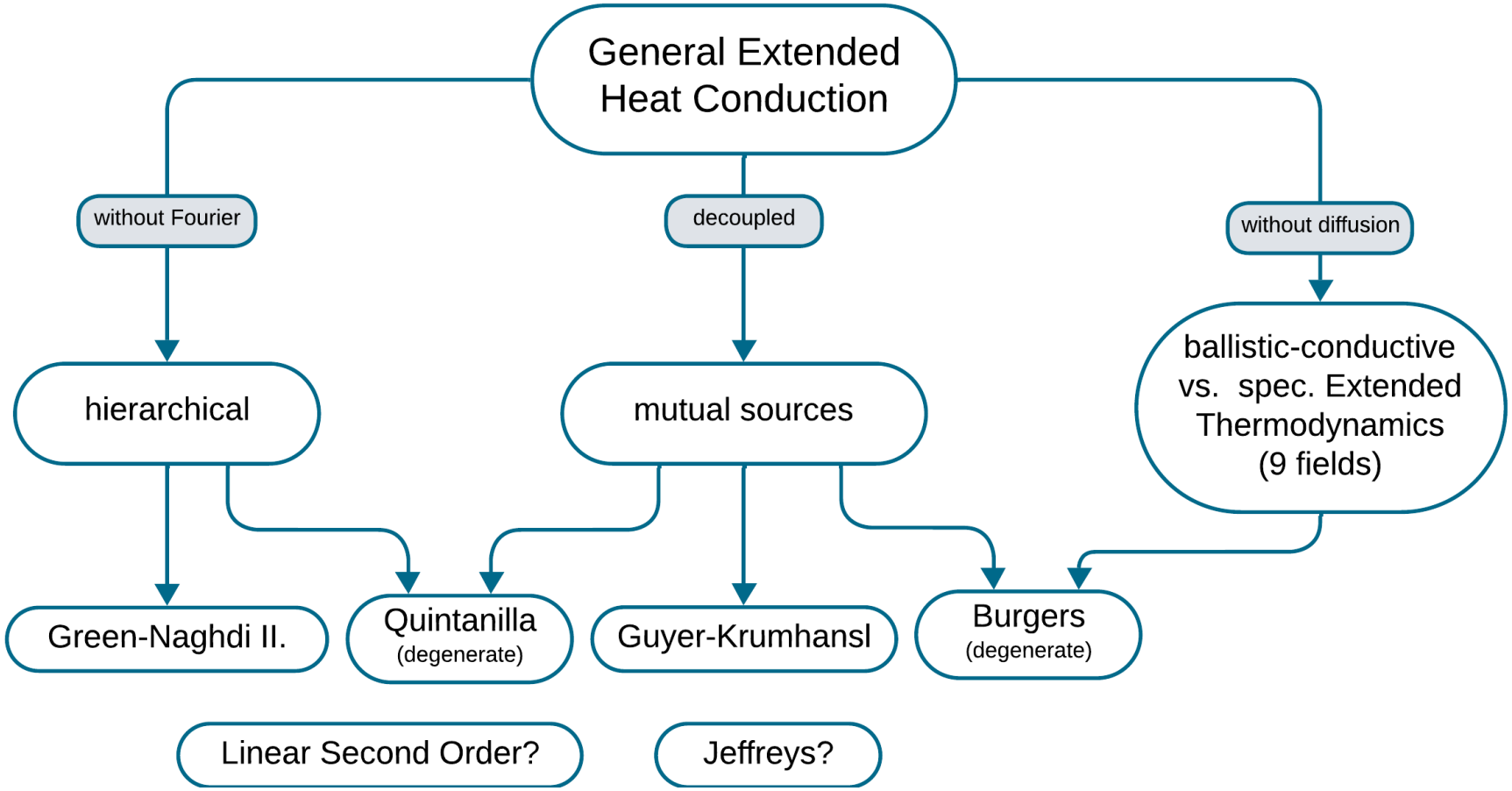
Motivation & goals

- **Thermodynamics as a stability theory**
- Stability of first-order dissipative relativistic fluids is an open problem (both nonrelativistic and special relativistic)
- Linear stability of homogeneous thermodynamic equilibrium?
- analyze the stability of the most general third-order Extended Theories
- determine if standard thermodynamic principles are sufficient to guarantee FDS in these complex models
- general framework: nonequilibrium thermodynamics with internal variables

Example



If you are interested further, come see my poster ☺