Comentários sobre Integrabilidade

What is an **integrable system**, and what is the significance of such systems?

Integrability of a system of differential equations should manifest itself through some generally recognizable features:
- the existence of many conserved quantities
- the presence of algebraic geometry
- the ability to give explicit solutions.

The book by Hitchin, Segal, Ward and Woodhouse begins with this nice quote: "Integrable systems, what are they? It's not easy to answer precisely. The question can occupy a whole book (Zakharov 1991), or be dismissed as Louis Armstrong is reputed to have done once when asked what jazz was---'If you gotta ask, you'll never know!'