

“Integrable quantum systems and solvable statistical mechanical models”  
«**Systèmes quantiques intégrables et modèles statistiques résolubles**»  
June 30 – July 5, 2008/**30 juin – au 5 juillet 2008**

## Ferromagnetic ordering of energy levels

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### **Abstract**

With Bruno Nachtergaele and Wolfgang Spitzer, we investigated ferromagnetic ordering of energy levels, a ferromagnetic version of the well known Lieb–Mattis theorem. Combining this with Bethe’s ansatz one can see that the lowest energy excitations above the all-up-spin ground state of the ferromagnetic XXZ model are physical droplets of down-spins. I will describe this and other implications of FOEL.