

*"Ab initio simulations at the surface of half-metallic manganites"*

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A good understanding of the surface physical properties in colossal magneto-resistant hole-doped manganese oxides is highly desirable for future spintronic applications of these promising materials. In this talk we will revisit the relevant electronic properties of the (001) surface, discuss the presence of a ferro-distortive instability and its effect on the magnetic properties of the surface. The role of oxygen vacancies and strain in thin films manganites will also be addressed.