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New sectors of string theory from supermembranes with discrete spectrum

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In the talk I will comment on two new sectors of string theory that are related to two sectors of the Supermembrane theory with a purely discrete spectrum. We will see that from the sector of the compactified supermembrane with constant and quantized 3-form supergravity background and monodromy contained in $SL(2,Z)$, by double dimensional reduction, it is obtained a new type of (p,q) string in 9D with a reduced parabolic symmetry and with a new tension and a flux contribution. This string is associated with the supermembrane with parabolic monodromy. At low energies, it should correspond to the type II parabolic gauged supergravity in 9D. On the other hand, from the massive supermembrane, which corresponds to a supermembrane on a puntured Rieman surface when a particular double dimensional reduction is performed, it is possible to obtain a worldsheet description of a new type of N=2, IIA string in 10D. We will discuss its main properties and its relation with the conjectured massive type IIA string from Romans supergravity.

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