SK-groups, cobordisms, and K-theory of manifolds

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In this talk I will explain the construction that will allow us to speak about the "K-theory of manifolds" spectrum. The zeroth homotopy group of the constructed spectrum recovers the classical groups SK_n. I will show how to relate the spectrum to the algebraic K-theory of integers, and how this leads to the Euler characteristic and the Kervaire semicharacteristic when restricted to the lower homotopy groups. Further I will describe the connection of our spectrum with the cobordism category.
(joint work with Renee Hoekzema, Mona Merling, Laura Murray, George Raptis, Carmen Rovi)