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Probing conformal symmetry through gravitational waves

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In this talk the electroweak and conformal symmetry-breaking phase transition is analysed within the SU(2)cSM model. It consists of the conformal standard model extended by a new gauge SU(2) group and a scalar field that is a doublet under this new symmetry. The two sectors communicate through a Higgs portal coupling. The phase transition proceeds after a large super-cooling and is thus very strong. I will present estimates of the gravitational-wave signal and show that it generically falls into the LISA sensitivity region.

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