

1052-55-230

Andre Joyal* (joyal.andre@uqam.ca), UQAM, Montreal, Quebec H3C 3P8, Canada. *Homotopy factorisation systems in model categories and factorisation systems in quasi-categories*. Preliminary report.

We introduce a notion of homotopy factorisation system in a general model category which extends the notion introduced by Bousfield in localisation theory. We gives many new examples in homotopy theory and in higher category theory. We also introduce a notion of factorisation system in a quasi-category. We show that the two notions coincide if the quasi-category is the Dwyer-Kan localisation of a model category. (Received August 28, 2009)