

(Dark) Matter production during the early Universe

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Simon Cléry, 23



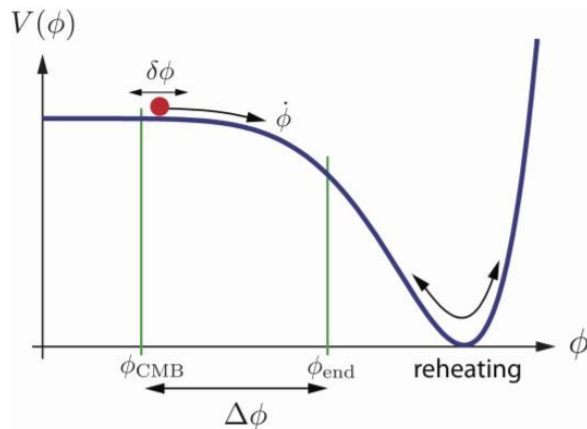
- Preparatory classes for 2 years in Bachelor at Lycée Clémenceau, Nantes
- Université Paris-Saclay at the “Magistère de Physique fondamentale”
- NPAC (Particles and Cosmology) during my Master 2, in Orsay
- Master Internship with Yann Mambrini at IJCLab
- I started my PhD in October !



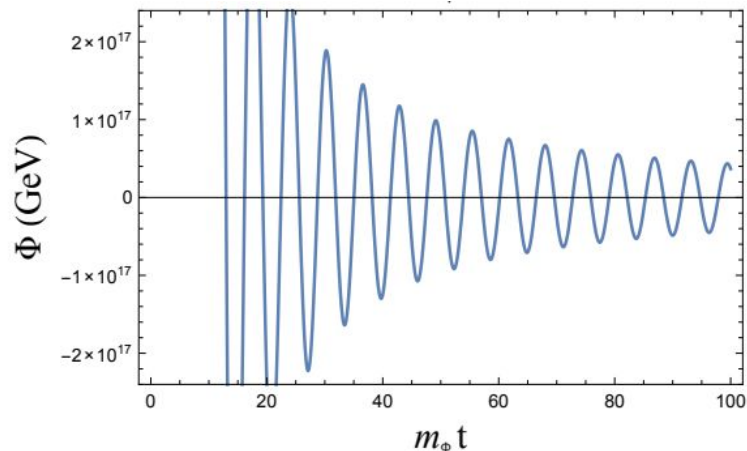
Fields of interest during my PhD

Early Universe phenomenology at the edge between Particle Physics and Cosmology :

- Inflation and (p)reheating : particle production at the end of inflation



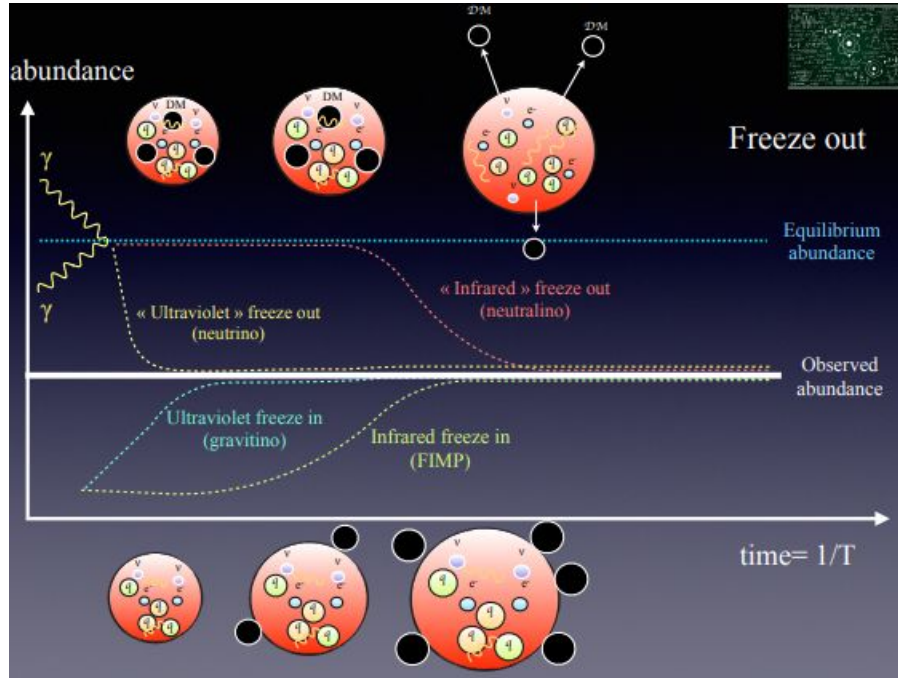
Schematic inflationary process (Baumann & Peiris, 2009).



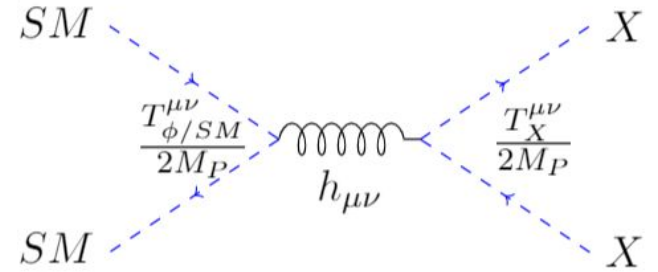
From “Particles in the Dark Universe”, Springer (2021), Yann Mambrini

Fields of interest during my PhD

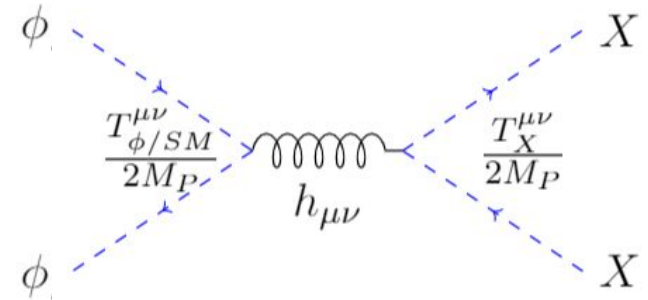
- Dark Matter production and phenomenology of “FIMPs” candidates

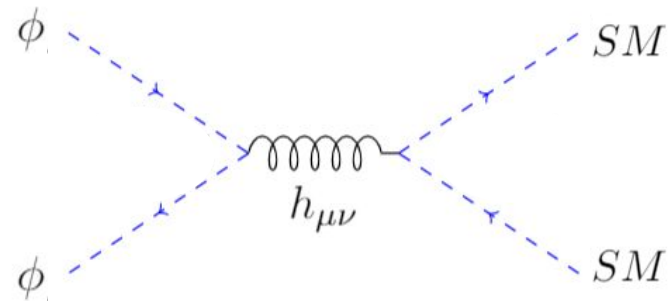
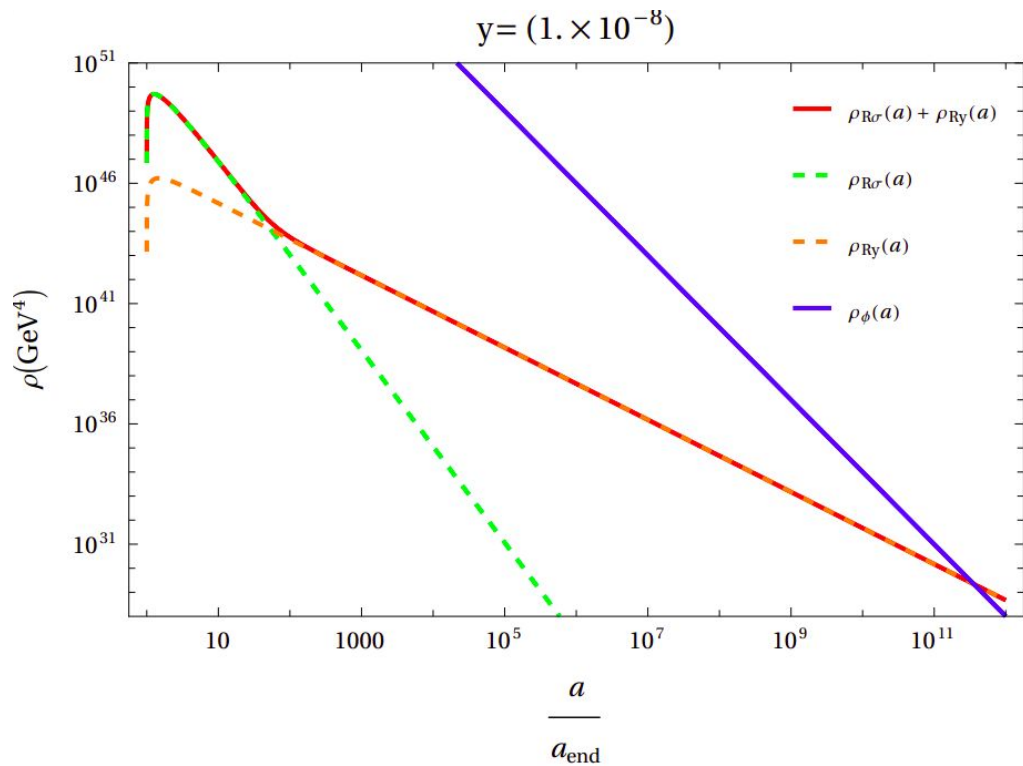


Credit : Yann Mambrini



Graviton portal to Dark Matter





“Gravitational portal in the early Universe”, S.C, Y.Mambrini, K.Olive, S.Verner, in preparation

Thank you !