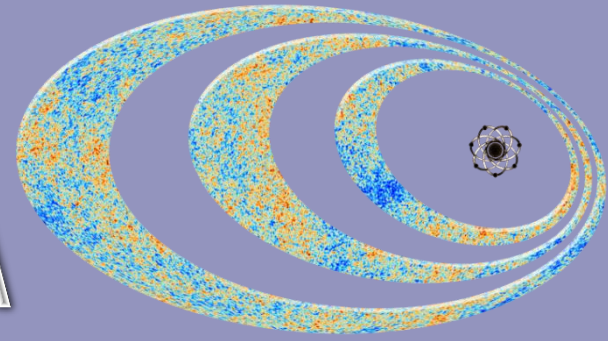


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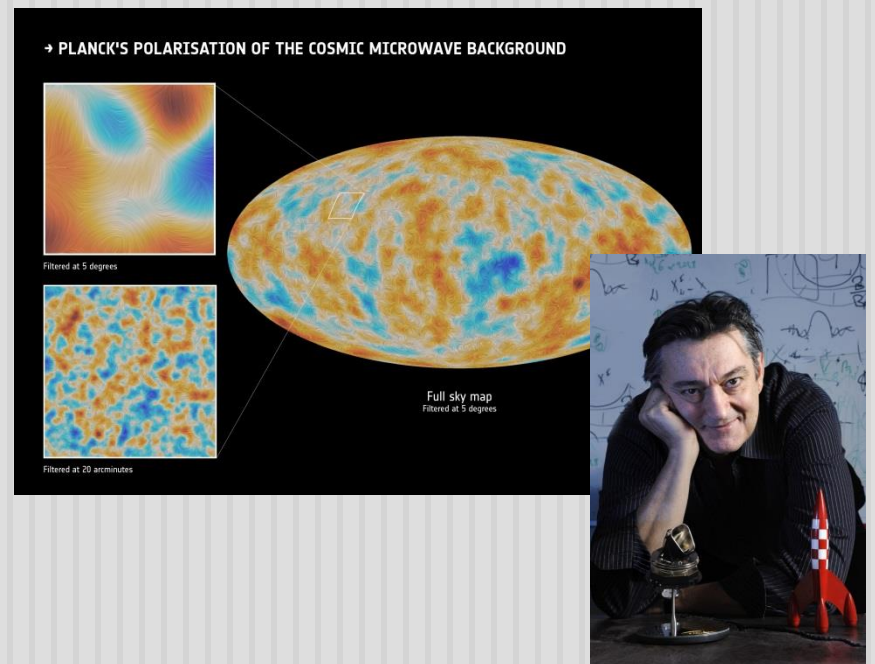
Latest cosmological results from the Planck space mission

Prof. François Bouchet, Institut d'Astrophysique, Paris

Abstract: Sketched out in 1992, selected by ESA in 1996, launched in 2009, Planck delivered its first set of results in March 21st 2013, in particular the map of the anisotropies of the Cosmic Microwave Background (CMB). The later displays minuscule variations as a function of the observing direction of the temperature of the fossil radiation around its mean temperature of 2.725K. I will describe the new results we just obtained from the analysis of all the data acquired during the mission (more than twice as much as before), including for the first time the polarisation measurements.

CMB anisotropies reveal the imprint of the primordial fluctuations which initiate the growth of the large scale structures of the Universe, as transformed by their evolution, in particular during the first 370 000 years. Both temperature and polarisation anisotropies teach us, independently or jointly, the possible value of the parameters of the models when confronted to data. I will review the new Planck cosmology, both in terms of content of the universe and of characteristics of the primordial fluctuations.

About the speaker: Prof. Bouchet is a cosmologist who specialises in understanding the large scale structure of the universe using the CMB. He received his undergraduate and postgraduate degrees from the University of Paris VI. After completing his PhD in 1983 he worked at l'Ecole Polytechnique in association with the Institut d'Astrophysique de Paris (IAP). He joined IAP in 1989 where he has remained ever since. He is currently deputy PI and science coordinator of the Planck mission. He is an author of over 200 publications and has won a number of prizes including the *Prix scientifique de la fondation Louis D.* in 2014.



Venue: Central Lecture Theatre

Time: 5:00-6:00 PM

Date: April 8th, 2015

Tea and cake at 4:45 PM



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