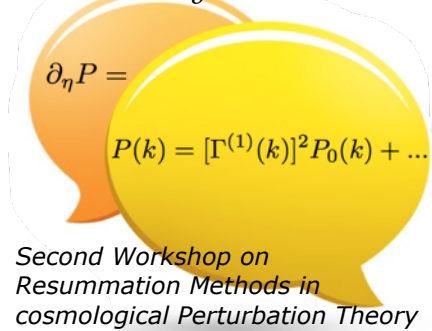


PTChat at Cargèse April 30 – Mai 3, 2013

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PTchat at Cargèse



With the advent of a new generation of wide field cosmological surveys aiming at characterizing the mass and energy content of the universe, it becomes important to develop tools for predicting and computing cosmic field statistical properties, such as cosmic density spectra or bispectra beyond the linear regime. To achieve such an objective, besides N-body simulations, one can rely on Perturbation Theory techniques that allow to approach such quantities in a controlled way. Furthermore those methods could in principle be exploited for a variety of cosmological models that include non-standard effects such as massive neutrinos or modified gravity models.

In this context, this workshop aims at gathering active researchers in the development of efficient analytical methods for the computation of the statistical properties of the large-scale structure of the Universe. It will provide the opportunity for participants to present and discuss the merits and scopes of the different Perturbation Theory approaches that have been put forward in recent years.

Main topics will include

- hardcore methods of perturbation theory
- application to redshift-space distortions
- biasing mechanisms and properties of halos
- construction of modified gravity & dark energy models
- impact of massive neutrinos on the development of large-scale structure
- computations of covariances

Eminent scientists in the field will animate the school.

These include:

Ph. Brax (IPhT Saclay, FR), V. Desjacques (Genève, CH), M. Peloso (U. Minnesota, US), M. Pietroni (INFN Padua, IT), D. Pogosian (U. Alberta Edmonton, CA), L. Senatore (CERN and U. Stanford, US), R. Scoccimarro (NYU New York, US), E. Sefusatti (ICTP, IT) and A. Taruya (RESCEU Tokyo, JP).

The scientific program will gradually be established, based on the proposals of accepted contributions

Organization Committee

Francis Bernardeau (IPhT Saclay FR), Takahiro Nishimichi (IPMU & IAP, Tokyo JP and Paris FR), Patrick Valegeas (IphT Saclay FR)

Application and registration

[http://www.iesc.univ-corse.fr/index.php?id=81&L=0&tx_iesciececoles_pi4\[idecole\]=804](http://www.iesc.univ-corse.fr/index.php?id=81&L=0&tx_iesciececoles_pi4[idecole]=804)

No Registration fees

Deadline for applications to April 7th, 2013

