

A Tribute to Bach-Lien HUA 9h-13h

09:00 Registration - **Coffee**

09:30 Patrice Klein: *Welcome*

09:45 **A Tribute to Bach-Lien Hua**

Patrick Vincent

Michel Crépon

10:30 Alain Colin de Verdière: *Lien's scientific approach: how it can help to make future breakthroughs*

11:00 **Coffee Break**

11:30 Eric Firing: *Equatorial subthermocline circulation driven by intraseasonal variability*

12:00 Annick Pouquet: *An energy pathway to dissipation in rotating stratified turbulence in the context of astrophysical and geophysical flows*

12:30 Emile Okal: *Extracurricular Geophysics: Unexpected coupling between Earth systems*

13:00 **Lunch**

Large and mesoscale interactions at mid-latitude 14h30-17h30



14:30 Peter B. Rhines: *Connecting enstrophy dynamics with western boundary currents*

15:00 William K. Dewar: *Potential Vorticity Budgets in the General Circulation*

15:20 Thierry Huck: *Multidecadal variability of the overturning*

circulation in presence of eddy turbulence

15:40 Louis-Philippe Nadeau: *The role of closed gyres in setting the zonal transport of the Antarctic Circumpolar Current*

16:00 **Coffee Break**

16:30 Paola Cessi: *Topographic Enhancement of Eddy Efficiency in Baroclinic Equilibration*

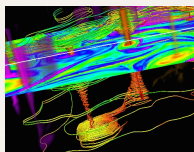
16:50 William R. Young: *Zonostrophic Instability: formation, maintenance and drift of beta-plane jets*

17:10 Carsten Eden: *A framework for energetically consistent ocean models*



PROGRAM

Meso and sub-mesoscale turbulence 9h00-13h



09:00 Xavier Capet: *Impact of sub-meso-scale fronts in the ocean: recent progress and enduring challenges*

09:30 Rosemary Morrow: *Resolving small-scale ocean dynamics from altimetry & the future SWOT mission*

09:50 Brian Arbic: *Towards an internal wave spectrum in global ocean models*

10:10 Bertrand Chapron: *Detailing the upper ocean-atmosphere couplings from Space*

10:30 Hideharu Sasaki: *Impact of oceanic scale-interactions on the seasonal modulation of ocean dynamics by the atmosphere*

10:50 **Coffee Break**

11:20 Marie Farge: *Production of dissipative vortices by solid bodies in incompressible fluid flows: comparison between Prandtl, Navier-Stokes and Euler solutions*

11:40 Gualtiero Badin: *The role of short-wave instabilities on geostrophic turbulence is studied in a simplified model consisting of three layers in the quasigeostrophic approximation*

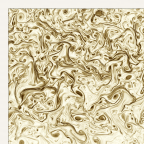
12:00 Hidenori Aiki: *Reduction of sampling errors using a phase-independent expression for energy flux associated with inertia-gravity wave*

12:20 Adrian Martin: *The Challenges of Life at the Mesoscale and Submesoscale*

12:40 Marina Levy: *Oceanic mesoscale turbulence drives large biogeochemical interannual variability at mid and high latitudes*

13:00 **Lunch**

Stirring and mixing 14h30-19h30



14:30 Guillaume Lapeyre: *Stirring and mixing of active and passive tracers in the atmosphere and ocean*

15:00 K. Shafer Smith: *Submesoscale stirring by balanced and unbalanced flows*

15:30 Peter H. Haynes: *What limits horizontal scales of oceanic tracer filaments?*

15:50 Joe Lacasce: *Relative dispersion in the atmosphere*

16:10 **Coffee Break**

16:40 Daniel Schertzer: *Quasi-geostrophic approximation and a fractional vorticity equation*

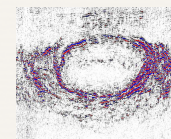
17:00 Joël Sommeria: *Mixing in a stably stratified fluid: statistical mechanics predictions compared with laboratory experiments*

17:20 Remi Tailleux: *Molecular control of turbulent diapycnal mixing in the ocean thermocline*

17:40 Pascale Bouruet-Aubertot: *Parameterization of energy dissipation and turbulent mixing in the Indonesian Through-flow from INDOMIX experiment*

POSTER SESSION 18h-19h30

Equatorial interacting scales 9h00-12h30 Ocean layering and seismic observations



09:00 Kelvin J. Richards: *Layering and shear generated turbulence in the equatorial Pacific*

09:30 Vladimir Zeitlin: *Understanding inertial instability of equatorial jets*

09:50 Frédéric Marin: *Intermediate zonal jets in the tropical oceans as observed*

by Argo floats: A new challenge for theoreticians

10:10 Bruce Cornuelle: *State estimation and prediction in the bifurcation region East of the Philippines*

10:30 Breck Owens: *Repeat Observations by Gliders in the Equatorial Region west of the Galápagos Archipelago - Preliminary Observations and Modeling Studies*

10:50 **Coffee Break**

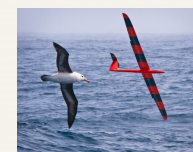
11:20 Claire Ménesguen: *Layering and turbulence surrounding an anticyclonic oceanic vortex: In situ observations and quasi-geostrophic numerical simulations*

11:50 Patrice Meunier: *Structure and instabilities of lens vortices in a stratified fluid*

12:10 Paul Billant: *Experimental and numerical studies of stratified turbulence forced with columnar dipoles.*

POSTER SESSION - **Buffet** 12h30-14h

Scientific Breakthroughs in ocean-atmosphere interactions 14h-17h30



14:00 Claude Frankignoul: *The influence of the variability of the ocean circulation on the large-scale atmospheric circulation: observational evidence and possible mechanisms*

14:30 Fabrice Ardhuin: *How ocean waves rock the solid Earth: two mechanisms explain seismic noise with periods 1 to 300 seconds*

14:50 Phil Richardson: *Proposed Observing System Using High-Speed Robotic Albatross UAVs Powered by Dynamic Soaring*

15:10 Gwendal Rivière: *Eddy kinetic-energy redistribution in quasi-geostrophic flows: implication for the midlatitude winter storms*

15:30 **Coffee Break**

16:00 Florian Sévellec: *On the predictability of the North Atlantic ocean state*

16:20 Bunmei Taguchi: *Response of atmosphere-ocean system to latitudinal shifts of the North Pacific western boundary current extensions in a coupled GCM*

16:40 Anne-Marie Tréguier: *Challenges in high resolution climate modelling*

17:00 Michael Ghil: *Climate change and climate variability: What do we know?*