Agenda
Partial Differential Equations on the Sphere (PDEs)
April 3rd – 7th, Paris, France

Monday, April 3rd
Salle Dussane (45 Rue d'Ulm)

9:00	**Opening Remarks**	
9:20	*Nicholas Kevlahan*	A wavelet-based adaptive hydrostatic dynamical core
9:40	*Hilary Weller*	Optimally transported meshes on the Sphere for Global Atmospheric Modelling
10:00	**Break**	
10:30	*Hans Johansen*	CAMR: An adaptive non-hydrostatic dynamical core for tracking atmospheric features
10:50	*Jared Ferguson*	Evaluating adaptive mesh refinement in 2D and 3D idealized atmosphere experiments
11:10	*Andrew Mcrae*	Mesh adaptivity for NWP using optimal-transport-based methods
11:30	**Break**	
12:00	*Stefan Vater*	Adaptive shallow water wave simulations with RKDG schemes on triangular grids
12:20	*Luca Arpaia*	An ALE moving mesh method on the sphere for tsunami wave propagation and inundation
12:40	**Lunch** (on your own- a list of nearby restaurants has been provided in your welcome packet)	
14:30	*Michail Diamantakis*	Recent improvements in the semi-Lagrangian transport in the spectral ECMWF model
14:50	*Abdessamad Qaddouri*	Monotonicity and mass conservation for tracer transport in GEM model
15:10	*Konrad Simon*	A Langrangian multiscale FEM for transient passive advection-diffusion equations with strong transport
15:30	**Break**	
16:00	*Hyun Nam*	Implementation of the Spectral Element Lagrangian Transport (SPELT) Scheme in the Non-hydrostatic Global Atmospheric Model of KIAPS
16:20	*Dave Lee*	A Characteristic Discontinuous Galerkin Method for Tracer Advection in MPAS-Ocean
16:40	**Adjourn**	

18:00 Icebreaker + Cocktails (Universite Marie Curie- Jussieu, 1st Floor Building 44/45)

Tuesday, April 4th
Salle Jaures (29 Rue d'Ulm)

9:00	*Michael Toy*	A potential enstrophy and energy conserving scheme for the shallow water equations on the cubed sphere
9:20	*Pedro Peixoto*	Numerical instabilities of vector invariant momentum equations on C-grids

9:40 *Werner Bauer*   Variational integrators for anelastic and pseudo-incompressible flows and various equations of GFD
10:00 **Break**
10:30 *Maciej Waruszewski*   Third-order accurate MPDATA for arbitrary flows
10:50 *Christopher Subich*   Higher-order finite volume operators on the icosahedral spherical grid
11:10 *Tan Bui-Thanh*   Some advances in the upwind hybridized discontinuous Galerkin method for dynamical cores
11:30 **Break**
12:00 *Tommaso Benacchio*   Progress and challenges with GungHo, the Met Office's next generation dynamical core
12:20 *Marco Kupiainen*   RCA5 - The New Rossby Centre Atmospheric Model
12:40 *Shian-Jiann Lin*   Impacts of the dynamical solvers on the medium-range weather forecasts
13:00 **Lunch** (on your own- a list of nearby restaurants has been provided in your welcome packet)
14:30 *Charles Colavolpe*   Towards a new class of Runge-Kutta Horizontally Explicit Vertically Implicit time schemes for the fully compressible dynamical system
14:50 *Tae-Hyeong Yi*   Time Integration of Euler Equations using Dual Time-Stepping and Multigrid Methods
15:10 *Kohei Aranami*   A time-splitting method for Eulerian based models considering the CFL condition in 3D
15:30 **Break**
16:00 *Oswald Knoth*   Split-explicit methods and local linear splitting
16:20 *Ram Nair*   A Split-Explicit Time Integration Scheme for the Godunov-Type Nonhydrostatic Finite-Volume Model.
16:40 **Adjourn**

Wednesday, April 5th
Salle Dussane (45 Rue d'Ulm)

9:00   *James Shaw*   Improving accuracy over steep slopes
9:20   *Marien Lennart*   Improving Balancing Properties in the Terrain-Following Hydrostatic Regional Climate Model REMO
9:40   *John Thuburn*   The Gibbs function: a route to consistent and flexible thermodynamics in atmospheric models
10:00 **Break**
10:30 *Almut Gassmann*   Hexagonal C-grid formulation of momentum diffusion and frictional heating
10:50 *Urs Schaefer-Rolffs*   Consistent 3D turbulence parametrization in circulation models
11:10 *Ben Shipway*   Coupling finite difference physics parametrizations to a mixed finite element dynamical core
11:30 **Break**
12:00 *Christiane Jablonowski*   DCMIP-2016: Overview and Results of the Moist Baroclinic Wave Test Case
12:20 *Kevin Reed*   DCMIP-2016: Results of the Tropical Cyclone and Supercell Test Cases
12:40 *Peter Lauritzen*   On the development of CAM-SE-CSLAM with separate physics grid
13:00 **Adjourn**

17:30 Boat Tour on the Seine (departs at 17:45, Vedettes du Pont Neuf)

19:30 Conference Dinner (AG Les Halles, 14 Rue Mondétour)

Thursday, April 6th
Salle Dussane (45 Rue d'Ulm)

9:00	*Chris Eldred*	Dynamico-FE: A Structure-Preserving Hydrostatic Dynamical Core
9:20	*Jemma Shipton*	Compatible finite element methods for numerical weather prediction
9:40	*Ja-Rin Park*	Extension of the vertical discretization with the finite element method to the non-hydrostatic dynamical core of KIAPS
10:00	**Break**	
10:30	*Praveen Chandrashekarappa*	Discontinuous Galerkin and Spectral Element Methods for rotating shallow water equation on the sphere
10:50	*Anja Jeschke*	Discontinuous Galerkin Discretization for Depth-averaged Non-hydrostatic Extension for Shallow Water Equations
11:10	**Poster Advertising:**	
	Enver Ramirez	A multiscale coupled atmosphere-ocean oscillator
	Anusha Sunkisala	Coupling concepts based on schwarz decomposition methods
	Yumeng Chen	An Adaptive Mass Conservative Multi-tracer Efficient Semi-Lagrangian Advection Scheme
	Nathan Paldor	A theory of Kelvin and Yanai waves on a sphere derived from approximate Schrodinger equations
	Nigel Wood	LFRic: Scalability and flexibility of models on future HPCs
11:30	**Break**	
12:00	*Hadrien Montanelli*	Fourth-order time-stepping for stiff PDEs on the sphere
12:20	*Michael Baldauf*	The HEVI approach in Discontinuous Galerkin methods
12:40	*Martin Schreiber*	SPH-REXI: A parallel-in-time method with spherical harmonics for linear oscillatory problems
13:00	**Lunch** (on your own- a list of nearby restaurants has been provided in your welcome packet)	
14:30	*Masami Sakamoto*	Development of a Hexahedral Yin-Yang Grid Global Model: AGHEXA
14:50	*Alex Reinecke*	Next Generation NWP Using a Spectral Element Dynamical Core
15:10	**Poster Advertising:**	
	Sebastian Borchert	Extending the ICON-model to the upper atmosphere in order to study gravity wave dynamics from the troposphere to the thermosphere
	David Hall	Advances in the ACME-HOMME dynamical core
	Werner Bauer	A structure-preserving split finite element discretization of the split 1D linear shallow-water equations
	Thomas Dubos	Dynamico, an atmospheric dynamical core for high-performance climate modeling
15:30	**Break and Group Photo**	
16:00	**Poster Session (Salle Rotonde- 45 Rue d'Ulm)**	
18:00	**Adjourn**	

Friday, April 7th
Salle Dussane (45 Rue d'Ulm)

9:00	*Sehun Chun*	Method of moving frames to solve the shallow water equations on arbitrary rotating curved surfaces
9:20	*Matthieu Brachet*	Numerical approximation of propagation problems on the sphere using a compact scheme
9:40	*Pierre Bénard*	Circumventing the pole problem for solving PDES in spherical coordinates with local algorithms
10:00	**Break**	
10:30	*Andreas Mueller*	ESCAPE: optimising NWP dwarfs for energy efficient exascale computing
10:50	*Matthew Norman*	Narrowing Constraints: A Wide View on Algorithms and Science Goals for Climate and Weather in Light of Modern Architectures
11:10	*Zbigniew Piotrowski*	Distributed ADI preconditioning of elliptic solvers in all-scale global models of atmospheric flows
11:30	**Adjourn**	