ALADIN 1999 Working Plan

(to be modified according to each partner's topics of interest and means)

(references in italics refer to the updated version of the medium-term research plan)

I. Physics

II. Dynamics, coupling

III. Data assimilation

I. Physics

Ref.	Topic	Team	Place	Date	Work
I.1 *B3*	Another strategy for the physics-dynamics interface	LACE ?	Prague	(1)	2 to 3 months
I.2 *A3*	Study of different effects of the mountains (dynamics and physics)	M. Siroka, R. Mladek Morocco ? France ?	Prague deported	year	4 months ?
I.3 *A3*	Analysis for applying a new thermodynamics in the model (specific heat of liquid and ice water)	LACE ?	Prague		6 months
I.4 *A3*	Local study of the impact of soil melting/freezing processes	Croatia (LACE)	Prague	(2)	1 month
I.5 *A3 B3*	Representation of lakes - 1a-b (a : collecting observations, b : modifying 923 and 927)	a Hungary + ? b Sandor Kertesz	a deported b Budapest		a ? b 1 month
I.6 *A3 B3*	Representation of lakes - 2 (new parameterization)	Sandor Kertesz	Toulouse Budapest	Autumn	6 months
I.7 *A3*	New parameterization of radiation - 2 (support)	Morocco ?	Toulouse	Autumn	2 months
I.8	Forecasting skill for snow cover	?	deported		

Ref.	Topic	Team	Place	Date	Work
A3	(collecting informations as a support for the implementation of a new parameterization)				
I.9 A3	Parameterization of convection - 1 (integration and validation of the latest developments, tunings)	Vladimir Pastircak Jean-Marcel Piriou	Toulouse	March April	3 months
I.10 A3	Parameterization of convection - 2 (study of dry convection)	Martin Bellus	Prague	February April	2 months
I.11 A3	Parameterization of convection - 3 (new closure)	Mehdi El Abed Eric Bazile	Toulouse Casablanca	Autumn	4 months
I.12 A3	Remaining problems in configuration 923	France	Toulouse Réunion	June-July May	2 months 1 month
I.13 B3	Using new databases in configuration 923	Olivier Latinne Ferenc Acs	Toulouse* Budapest	May - ?	2 to 3 months
I.14 B3	Introduction of liquid and ice water in the parameterization of convection	Doina Banciu (PhD)	Toulouse Bucarest	year	
I.15 B3	Initialization of the interception water content (water on the leaves) (slight modification of 927, sensitivity of short range forecasts)	Antun Marki	Toulouse	Sept.	1 month
p.m.	Improving the surface scheme and the corresponding analysis (ISBA)	E. Bazile + F. Bouyssel	Toulouse	year	
p.m.	Improving the parameterization of radiation - 1 (design)	J.M. Piriou	Toulouse	March - ?	10 months

(1) according to available parameterizations
2) once developments for "blending" achieved
* to start the project (2 months) at least

II. Dynamics, coupling

Ref.	Topic	Team	Place	Date	Work
II.1 C4	"bogussing" (how to correct ARPEGE using ALADIN, alias anti-E927 or E927E)	Ryad El Khatib CRC (France)	Toulouse Réunion	Jan. - July year	6 months 5 months

II.2 B2	Coupling surface pressure tendency	LACE ?	Prague		2 months
II.3 A4 B2	Test of the frequency of coupling	LACE ? Morocco	Prague ? Casablanca		1 month 1 month
II.4 A4 B2	Strategy for coupling : part of resolution	Morocco	Casablanca		2 months
II.5 A2	Refinement of the radiative upper boundary condition	Ryad El Khatib	Toulouse	April May	2 months
II.6 A2	Extension of the Tanguay-Ritchie method to orographic terms	Petra Smolikova	Prague Toulouse	March April	2 months
II.7 A2	Design and validation of a new semi-lagrangian advection scheme	Ilian Gospodinov (PhD) Valery Spiridonov	Toulouse Sofia	year	
II.8 A2	Study of dissipative properties of semi-lagrangian advection schemes	Filip Vana (PhD)	Toulouse Prague	year	
II.9 A2	Validation of new developments on semi-lagrangian advection schemes	Petra Smolikova	Toulouse	June	1 month
II.10 A2	Testing different options available for the semi-lagrangian advection (using the tools developed by Filip Vana)	LACE ?	Prague		2 months
II.11 B1	Development of the vertical plane version of ALADIN	Pierre Bénard Josef Vivoda	Toulouse	Mai Juin	4 months
II.12 B1	Control of elastic waves in non-hydrostatic dynamics	Almut Gassmann	Toulouse	January February	2 months
II.13 B1	Temporal decentering with selection on vertical modes in non-hydrostatique dynamics -1 (analysis)	Pierre Bénard	Toulouse	March	1 months
II.14 B1	Temporal decentering with selection on vertical modes in non-hydrostatique dynamics		Toulouse Prague		2 months

Ref.	Topic	Team	Place	Date	Work
	- 2 (implementation)				
II.15 *B1*	Problem of the two-time-level semi-lagrangian advection schemes in non-hydrostatic dynamics	LACE ?	Prague Toulouse	(1) H. priority	6 months?
II.16 *B1*	Academic studies in non-hydrostatic dynamics	Josef Vivoda (LACE)	Prague	Autumn	1 to 2 months
II.17 *B1*	Study of the lower boundary condition in non-hydrostatic dynamics	Tamas Szabo (LACE)	Prague	Autumn	1 month
II.18 *B1*	Study of the upper boundary condition in non-hydrostatic dynamics	LACE ?	Prague Toulouse	(1)	1 month
II.19 *B1 B3*	High resolution configuration for the validation of new developments in (non-hydrostatic) dynamics and physics	Slovénie	Ljublana	year	
II.20 *A3 B1*	High resolution sensitivity studies for sea-breeze situations	Portugal	Lisbonne	year	
II.21 *A2*	Small scale dynamical adaptation	Mark Zagar (PhD)	Toulouse Ljublana	year	

(1) once the vertical plane model achieved (II.11)

III. Data assimilation

Ref.	Topic	Team	Place	Date	Work
III.1 *C3*	3d-Var : code cleaning, technical problems in Jo	Andras Horanyi Maria Siroka	Prague	March	2 months
III.2 *C3*	3d-Var : porting to distributed memory environment	Claude Fischer	Toulouse	April-May	2 months

III.3 *C3*	3d-Var : validation	C. Fischer, A. Horanyi, W. Sadiki, M. Siroka, C. Soci, R. Bubnova	Toulouse	June - July	12 months
III.4 *C3*	Tangent linear and adjoint of APACHE	LACE ?	Prague ?	?	1 to 2 months
III.5 *C3*	Sensitivity studies (1) (background experiments)	Adam Dziedzic Claude Fischer	Toulouse	May June	2 months
III.6 *C3*	Sensitivity studies (2) (801, 601)	Claude Fischer student	Toulouse Budapest	year year	2 months
III.7 *C4*	Lateral boundary conditions in configuration 801 (validation)	Cornel Soci Claude Fischer	Bucarest Toulouse		1 to 2 months
III.8 *C3*	Background error statistics for ALADIN / Maroc	Wafaa Sadiki	Casablanca	Spring	2 to 3 months
III.9 *C3*	Background error statistics for ALADIN / LACE	Yong Wang (LACE)	Prague	Autumn	1 month
III.10 *C2*	Working plan for CANARI/ALADIN	Vincent Cassé	Toulouse	February	1 month
III.11 *C2*	Separating upperair and surface analyses in CANARI/ALADIN	Gabor Radnoti	Prague	March	1 to 2 months
III.12 *C2*	Tunings and developments in CANARI/ALADIN (mainly for Diag-Pack)	G. Radnoti,, J. Jerman, M. Zitouni (LACE), France, Morocco	Toulouse Prague deported	May - ?	6 months
III.13 *C2*	Study of orography related problems in CANARI/ALADIN	Jure Jerman	Ljublana	Autumn	
III.14 *C2*	Coding convection indices in Full-Pos (for Diag-Pack) Interface for Diag-Pack	Harald Seidl Akos Horvath	Prague Budapest	May Autumn	1 month 2 months

III.15 *C2*	Validation of the analysis of specific humidity in CANARI/ALADIN	Morocco	Casablanca		
III.16 *C1*	Quality control of TOVS at a fine scale on the continent (for 3d:4d-Var)	LACE ? Morocco	Prague Casablanca		2 months
III.17 *A4 C4*	Some coupling problems in digital filter initialization		deported		1 month
III.18 *C4*	Spectral blending of initial conditions (impact of frequency, use of digital filtering, ...)	Dijana Klaric (LACE)	Prague	June Autumn	1 to 2 months
III.19 *C4*	Surface fields blending for initial conditions (stategy, tests)	Croatie (LACE)	Prague	Autumn	2 months