Chapman Conference on
Jets and Annular Structures in Geophysical Fluids
Scientific Program

Subjects

(A) Jets in the Atmosphere
(B) Jets in the Oceans
(C) Atmospheric Annular Modes
(D) Jets and Annular Flows in Planetary Atmospheres
(E) Jets in Idealized Flows (GFD)

Monday, January 9, 2006

8:00 - 9:00	Registration and put up posters		
	Chair: **W. Robinson**		
9:00 - 9:10	Welcome	**W. Robinson**	
9:10 - 9:30	Introduction	**S. Yoden**	Jets and annular structures in geophysical fluids
9:30 - 10:30	Review talk (A-1)	**S. Lee**	Jets in the atmosphere
10:30 - 11:00	Coffee break		
	Chair: **M. Baldwin**		
11:00 - 11:30	(A-2)	**K. Swanson**	Bifurcation dynamics in storm track systems
11:30 - 12:00	(A-3)	**P. Haynes**	Transport properties of jets in baroclinic systems
12:00 - 12:30	(A-4)	**T. Dunkerton**	Potential vorticity staircases in rotating stratified fluids: the role of anisotropic Rossby-wave propagation
12:30 - 14:00	Lunch		
	Chair: **H.-P. Huang**		
14:00 - 15:00	Review talk (C-1)	**J. M. Wallace**	The annular modes: a primer
15:00 -15:30	(C-2)	**P. Kushner**	On the zonal structure of the annular modes
15:30 – 16:00	Coffee break		
	Chair: **H.-P. Huang**		
16:00 – 17:00	**Short intro. of Posters – 1 & 2**		

17:00 – 18:30	**Poster session-1** ＋ Ice breaker		

Tuesday, January 10, 2006

Chair: **P. Rhines**

9:00 – 10:00	Review talk (B-1)	**J. Marshall**	Dynamics of the Antarctic circumpolar current, the ocean's annular mode
10:00 – 11:30	**Poster session-2** ＋ Coffee break		
11:30 – 12:00	(B-2)	**S. Gille**	The Antarctic circumpolar current
12:00 – 12:30	(B-3)	**C. Hughes**	Jets in the Antarctic circumpolar current
12:30 – 14:00	Lunch		

Chair: **P. Haynes**

14:00 – 14:30	(B-4)	**H. Nakano**	Zonal jets in fine-resolution OGCMs
14:30 – 15:00	(B-5)	**P. Berloff**	On rectification of randomly forced flows
15:00 – 15:30	(B-6)	**E. Shuckburgh**	Quantifying eddy transport and mixing in atmospheric and oceanic flows
15:30 – 16:00	Coffee break		

Chair: **H.-P. Huang**

16:00 – 16:30	(C-3)	**D. Lorenz**	Wave-mean-flow interaction and the annular modes
16:30 – 17:00	(C-4)	**F.-F. Jin**	Synoptic eddy and low-frequency flow (SELF) interaction and annular modes
17:00 - 18:00	**Short intro. of Posters – 3 & 4**		
18:30 - 20:00	Conference Dinner		

Chair: **S. Yoden**

20:00 - 21:00	Review talk (E-1)	**P. Rhines**	Orographic forcing of jets: simple experiments

Wednesday, January 11, 2006

Chair: **W. Robinson**

9:00 - 10:00	Review talk (A-5)	**M. McIntyre**	How cavity-like is the winter stratosphere?
10:00 - 11:30	**Poster session-3** ＋ Coffee break		

11:30 - 12:00	(C-5)	**M. Baldwin**	Annular modes and stratosphere-troposphere dynamical coupling
12:00 - 12:30	(C-6)	**M. Ambaum**	Mechanisms for variability of annular modes and jets
12:30 - 14:00	Lunch		
	Chair: **S. Yoden**		
14:00 - 14:30	(E-2)	**Y.-Y. Hayashi**	Rossby waves and acceleration-deceleration of jets on a sphere or in a spherical shell
14:30 - 15:00	(E-3)	**K. Ishioka**	Asymmetrization of jet profiles in beta-plane turbulence
15:00 - 15:30	(E-4)	**L. Smith**	A mechanism for the formation of jets and vortices from small-scale fluctuations

Thursday, January 12, 2006

	Chair; **Y.-Y. Hayashi**		
9:00 - 10:00	Review talk (D-1)	**M. Allison**	Jets and annular structures in planetary atmospheres
10:00 - 11:30	**Poster session-4** ＋ Coffee break		
11:30 - 12:00	(D-2)	**M. Miesch**	Zonal flows in the solar interior
12:00 - 12:30	(D-3)	**P. Read**	Dynamics of convectively driven banded jets in the laboratory
12:30 - 14:00	Lunch		
	Chair: **M. Allison**		
14:00 - 14:30	(D-4)	**B. Galperin**	Anisotropic large-scale turbulence and zonal jets in flows with beta-effect
14:30 - 15:00	(C-7)	**R. Black**	Annular structures associated with polar vortex breakdown
15:00 - 15:30	(C-8)	**I. Watterson**	Annular variability in simulated contemporary and warmer climates, and its impacts on the ocean and seasonal rainfall variability
15:30 - 16:00	(C-9)	**H.-P. Huang**	Tropically forced annular structures
16:00 - 16:30	Coffee break		

Chair: **W. Robinson**

16:30 - 18:00	**Panel Discussions**	**(A) P. Haynes** **(B) P. Rhines** **(C) M. Baldwin** **(D) M. Allison** **(E) Y.-Y. Hayashi**	What have we learned?

18:30 - 21:00 Conference Party

Posters

(A)

P1-1	**N. Calvo**	The QBO influence on the extratropical circulation in MAECHAM5 GCM
P2-1	**L. de la Torre**	Energy cycle associated with the polar night jet
P3-1	**D. Frierson**	The effect of moisture on the jet latitude
P4-1	**C. Gang**	A simple model for the dynamics of upper troposphere and the implication for surface westerly shift
P1-2	**L. Gimeno**	A new approach to study the intensity of the polar night jets and the stratospheric polar vortices
P2-2	**H. Huang**	A simple model of poleward propagation of zonal jets
P3-2	**J. Knox**	Tropical/high-latitude dynamical connections in the winter stratosphere
P4-2	**G. Lapeyre**	Restratication forced by ageostrophic fronts and eddies
P1-3	**S. Lee**	Quasi-periodic poleward propagation of zonal mean anomalies
P2-3	**L. Lin**	A numerical analysis of the first-order closure for synoptic eddy and low frequency flow (SELF)-feedback
P3-3	**Y. Maejima**	The generation and evolution mechanism of meso-alpha-scale and meso-beta-scale vortex disturbances
P4-3	**L. Pandolfo**	Eddy forcing of the zonally-symmetric atmospheric general circulation
P1-4	**C. Schwierz**	Rossby wave dynamics - case studies and climatology
P2-4	**J. Yin**	A consistent poleward shift of the storm tracks in simulations of 21st century climate
P3-4	**S. Yoden**	A parameter sweep experiment on quasi-periodic variations of a circumpolar vortex due to wave-wave interaction in a barotropic model

(B)

P4-4	**C. Chan**	Annular modes in a multiple migrating zonal jet regime
P1-5	**L. Hua**	Zonal equatorial deep jets formation mechanism
P2-5	**C. Hughes**	Storm tracks and eddy-jet interaction: a comparison between atmosphere and ocean
P3-5	**N. Maximenko**	Zonal jets in observations and models of the earth's ocean
P4-5	**R. Scott**	Oceanic jets around bottom topography in an oceanic general circulation model
P1-6	**S. Waterman**	Zonal jet and recirculation gyres from the rectification of localised oscillatory forcing: a laboratory, numerical and theoretical study
P2-6	**W. Weijer**	The role of the southern mode in the barotropic adjustment of the southern ocean

(C)

P3-6	**W/D**	
P4-6	**P. Athanasiadis**	Transient eddies and teleconnection patterns; studying their interaction.

P1-7	**W/D**	
P2-7	**B. Christiansen**	The role of the stratosphere in extended range forecasts of the near surface weather
P3-7	**F. Codron**	Relations between the annular modes and the mean state
P4-7	**W/D**	
P1-8	**W/D**	
P2-8	**E. Gerber**	The persistence of the annular modes and NAO - interactions between synoptic eddies and low frequency variability patterns in a simplified GCM
P3-8	**W/D**	
P4-8	**J. Jeong**	Stratospheric influences of cold surges in east Asia in association with northern annular mode
P1-9	**B. Lu**	Nonlinear relation of the arctic oscillation (AO) with the quasi-biennial oscillation (QBO)
P2-9	**J. Lukovich**	On the relationship between polar stratospheric zonal flow and surface cyclonic activity
P3-9	**J. Lukovich**	On the spatiotemporal behaviour of sea ice concentration anomalies in the northern hemisphere
P4-9	**O. Martius**	A climatological analysis of stratospheric intrusions and their link to large-scale climate modes
P1-10	**R. Nieto**	Leading modes of variability of the extratropical circulation linked to the breakup of the stratospheric polar vortex
P2-10	**M Ogi**	The summer northern annular mode and abnormal summer weather in 2003
P3-10	**L. Pan**	On the seasonality of northern annular mode (NAM)
P4-10	**C. Peña**	A climatology of the QBO through the MTMSVD
P1-11	**J. Perlwitz**	The response of the northern and southern hemisphere annular modes to anthropogenic forcings
P2-11	**M. Ring**	Forced annular mode patterns in a simple atmospheric general circulation model
P3-11	**H. Tanaka**	Arctic oscillation analyzed as a singular eigenmode of the global atmosphere
P4-11	**Y. Tomikawa**	Modified Lagrangian-mean analysis of the arctic oscillation
P1-12	**D. Vyushin**	Impact of long-range correlations on trend detection in the total ozone
P2-12	**Q. Wu**	Empirical study of atmospheric responses to the tropical SST forcing
P3-12	**Q. Wu**	AO, COWL, and observed climate trends
P4-12	**K. Yamazaki**	What kind of sudden stratospheric warming propagates to the troposphere

(D)

P1-13	**Y. Kaspi**	Baroclinic instability as a source for jupiter's zonal jets
P2-13	**P. O'Gorman**	Multiple jets, separation scales, and weather-layers in an idealized GCM

(E)

P3-13	**K. Iga**	Potential vorticity distribution of a vortex street formed by instability of a quasi-geostrophic jet
P4-13	**Y. Kitamura**	An equatorial jet emerged in shallow-water turbulence on a rotating sphere
P1-14	**W. Kramer**	Beta-plane turbulence in a basin with no-slip boundaries
P2-14	**R. Scott**	Jets and geostrophic turbulence: spherical geometry vs the beta-plane
P3-14	**K. Smith**	Eddy amplitudes in baroclinic turbulence driven by non-zonal mean flows: shear dispersion of potential vorticity
P4-14	**S. Takehiro**	Circumpolar jets emerging in two-dimensional barotoropic decaying turbulence on a rapidly rotating sphere
P1-15	**Y. Taniguchi**	Spontaneous zonal current in two dimensional turbulence on a rotating hemisphere