

Minutes for the GTP annual meeting held on October 22

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October 23, 2007

1 Approval of F07 budget

1.1 Seminars: Total of $\sim 5k$

10/19/06 - Hantao Ji, Initial Results from Princeton Magnetorotational Instability Experiment: Hydrodynamic Stability of Quasi-Keplerian Flows at Large Reynolds Numbers

11/4/06 - Alan Glasser, SEL: A Fully-Implicit Parallel Spectral Element Fluid Simulation Code

1/16/07 - William Matthaeus, Recent results in observations of solar wind turbulence: Single and multiple spacecraft observations

1/30/07 - Marc Brachet, Effective dissipation of turbulence in spectrally truncated Euler flows

2/20/07 - Marc Brachet, Generalized Eulerian-Lagrangian description of Navier Stokes dynamics

2/23/07 - Miriam Forman, Third moment scaling and energy dissipation in turbulent MHD fluctuations

3/2/07 - Philippe Odier, Measurement of entrainment and mixing in oceanic overflows

8/16/07 - Lian-Ping Wang, Direct numerical simulations of particle-laden flows

+ Sukoriansky and Galperin and Frank Shu (co-sponsored)

1.2 Long-term visitors: Total of $\sim 15 k$

Brachet (TNT): extension of the recently discovered quasi-dissipative behavior of the truncated Euler equations to the kinetic helical and MHD cases

Cossette (MMM): iterative solver for the Monge-Ampere equation and tested it in the framework of the semi-Lagrangian option of the EULAG model

Jonker (MMM): growth rate law (entrainment law) of the convective atmospheric boundary layer

Montgomery (TNT): fluids and MHD in rotating spheres

Lian-Ping Wang (MMM): particle-laden flows

1.3 No workshop in F07 but see next section

2 Theme of the year 2008 on Geophysical Turbulence (GT)

Sponsored by GTP (IMAGe); main organizer: Keith Julien (CU)

- A Workshop: Theory and Modeling for GT, 27-29 February 2008
- B Workshop: Petascale computing for GT, 5-7 May 2008
- C Workshop: New sensors, new observations for GT, 28-30 May 2008
- C,A,B School, July 14 to August 1, 2008
Related activities:
- Symposium on “Turbulence, dynamos and peta-speed (10/07) Organizers: Juri Toomre [CU] and Duane Rosenberg [NCAR]
- Nonlinear processes in atmospheric chemistry, 5 lectures By Adrian Tuck (NOAA), organized by Danny McKenna, tentative date in November 07

3 Budget for 2008

Already allocated (carry-over from 07): 0.5k for misc., 2k+1k for Finnigan, 30k for the oceanography workshop (Bill Large) for a total of 33.5k

Plus: Available in F08 in GTP account: 48k

Plus: Available in F08 in newly created GTP “lock box for visitors: 10k

For a total of 58k **available** for distribution in F08, on top of the 33.5 k mentioned above.

Possible activities:

Seminars (visitors up to 3 days, no load)

Longer-term visitors [who also give a seminar :)]

Another workshop in 2008? Two workshops in F09 (no load)?

One-time possibility of allocations for even-longer-time visitors (3 months?) ?

One-time partial post-doc or partial grad student? (1 mo PD 9k; 1 month GRA 3.5k)

4 Advisory Board in 2008

Make use of the availability of invited lecturers at either one of the workshops or school of TOY08 (Feb., May, July) ?

Write a draft strategic plan for the board? Volunteers needed :)

What problems do we want to tackle in the next 5 years, and how do they relate to the strategic goals of NCAR? What will they help solve? How do we mesh with petascale plans?

Prepare Strat. Plan with half-day to 1-day GTP retreat, where everyone comes with some bullets on goals, and we prioritize?

Establish the list of candidates for the AB, for example:

Bill Matthaeus (Bartol)

Charles Meneveau (JHU)

Sergei Nazarenko (Warwick)

Bjorn Stevens (UCLA)

Beth Wingate (LANL)

5 Tentative Decisions (fully loaded numbers)

In the absence of any other suggestion, it looks like the budget in 08 will be helpful to reinforce the TOY and to reinforce collaborations with universities and E&O, along the following lines:

- 12k (loaded) for H. Jonker, hosted by Peter Sullivan (MMM), under the condition that they give a seminar and that MMM co-sponsors him
- 12k (loaded) for P. Ortiz, hosted by Piotr Smolarkiewicz (MMM), same condition as above
- 14k (loaded) for a graduate student for ~ 4 months to work with Piotr, under the condition that s/he be accepted at and that s/he be participating to the TOY-08 summer school
- 5k (no load) for one-day turbulence center – CTR or other – brainstorming session, also inviting Jim McWilliams
- 7k (no load) for seminars (Please send potential names of people you would like to invite to Duane (duaner@ucar.edu) and myself; the money will be available until it is spent ...)
- 8k (loaded) for two one-month visitors in TNT

For a total of 58k.

6 Conclusion

Please send me

- * Suggestions of names for seminars
- * Your remarks, comments, requests, wishes and propositions for volunteering ...
- * Names of volunteers for small retreat and draft strategic plan :)

Please let me know of any special remarks; if none, I will take the final decision on the GTP money distribution next Monday, so that the GTP members can start sending the necessary invitations.

Thank you for participating, and for those who missed the cookies, thank you for your attention.

Annick