MEMO

To: Physics Faculty and Graduate Students
From: Robert Wald
Re: Guidelines for Ph.D. Thesis Committees and Ph.D. Theses
Date: September 15, 2004

Although Departmental policies on the formation of Ph.D. thesis committees, the requirements for committee meetings, and the requirements for the Ph.D. thesis itself are spelled out in various documents, there appears to be a remarkable degree of confusion about some of these matters. I therefore thought it would be useful to produce a relatively short memo that contains the relevant information and policies.

I. The Ph.D. Thesis Committees

1. Formation of Ph.D. Committee:

After a student passes the candidacy examination, it is his or her responsibility to find a member of the Physics Department faculty to serve as the Ph.D. thesis sponsor. (One may also seek a faculty sponsor from another department of the Physical Sciences Division of the University, from Argonne National Laboratory, or Fermi National Accelerator Laboratory. In such a case, a Department of Physics faculty member must be found to serve as “departmental sponsor”.) After a research sponsor is found, the Executive Officer will, in consultation with the sponsor, appoint a committee of at least four faculty members (including the sponsor) to serve as the Ph.D. Committee. The research sponsor serves as Chairperson.

The precise timing of the formation of the Ph.D. Committee is not always a straightforward matter. It is common for a student to be initially accepted by a sponsor only on a “trial basis”, and it would be reasonable to wait for the commitment to the student to be more definite before forming the Committee. However, the Committee should be formed no more than one year after the student first joins a group. If a student does not have a Ph.D. Committee by the beginning of the winter quarter of his or her third year, the Executive Officer will schedule a meeting with the student to determine if intervention by the Chairman may be required.

2. First Meeting of the Ph.D. Committee:

As soon as possible after the formation of the Ph.D. Committee, a “first meeting” should be held. The purposes of the first meeting are: (1) to get acquainted, (2) to check that the course requirements have been met or, if not, to agree upon what courses will be taken in the future, and (3) to discuss the proposed research plans. If some research has already been undertaken, it would
be appropriate for the student to give the Committee a short presentation of this work. However, this is not required, and the student and sponsor should not wait until some significant piece of research has been finished before calling the first meeting. At the first meeting the student should complete an RTC (Report of the Thesis Committee) form, obtainable in the Physics Department Office, have it signed by each member of the Committee, and return it to the Department Office. The student is expected to attach a one-page summary of the meeting. In most cases, this will consist of a summary of his/her research or a research prospectus.

3. Pre-Oral Meeting of the Ph.D. Committee:

At least one quarter prior to the oral defense, a “pre-oral” meeting of the Ph.D. Committee must be held. The main purpose of this meeting is to assure that the thesis will be of appropriately high caliber. At this meeting, the Committee must formally approve the thesis topic and title, and also certify that the course requirements have been satisfied (if the Committee did not already certify them as having been satisfied at the time of the first meeting). During the meeting, the student must give a brief description of the thesis work and the primary new results that have been obtained. If the Committee has any concerns about the proposed nature and scope of the thesis, these should be raised at this meeting. In addition, it must be specified at this meeting whether the thesis will consist of a single authored publication or whether it is proposed to be a jointly authored publication. If a jointly authored publication is planned, the Committee must approve this on the RTC form. In addition, for a jointly authored thesis, the student will be required to write a single-author expanded version of the thesis (see below).

4. Final Oral Examination:

When the thesis is completed, the Committee must be convened for the final oral examination. Copies of the thesis must be submitted to each member of the Committee and to the Physics Department at least two weeks prior to the meeting. In addition, if the thesis is a single authored publication, the student must also prepare and circulate to the Committee and Department a two-page summary of the thesis that explains the significance of the results in terms that should be easily understood by the non-expert members of the Committee (i.e., in a manner essentially free from technical jargon). The student must bring a copy of the “Report of Final Examination for the Degree of Doctor of Philosophy” form (obtainable from the Department Office) to the meeting. The members of the Ph.D. Committee must sign the form at the end of the examination, and the student must then return it to the Physics Department Office.

II. Requirements for the Ph.D. Dissertation:

The Ph.D. thesis consists of a paper that must be submitted to a research journal of high quality and must be judged by the full Thesis Committee to be suitable for publication in such a journal. In the case of a sole authored paper, the thesis is the manuscript submitted for publication, plus any supplementary appendices augmenting the presentation which might not be appropriate in a published paper. In the case of a multiple authored paper that has been or will be submitted for
publication, the thesis must be an extended version, written solely by the student and describing in
detail his or her contributions to the published work.

The only change in Departmental requirements for the thesis that has occurred within the past 30
years is the requirement that the paper be submitted for publication. Prior to 1994, it was required
that the paper be accepted for publication.

However, at very nearly the same time as the Physics Department instituted the above change, the
University Dissertation Office also made a change to the formatting requirements: Previously, a
sole authored paper could be initially submitted to the University Dissertation Office in almost any
format---to be replaced by a reprint after the paper was published---whereas for a multiple authored
paper, the extended version submitted to the University Dissertation Office had to meet more
stringent formatting requirements. Now, the University Dissertation Office requires both types of
theses to meet these more stringent formatting requirements. (The details of these formatting
requirements can be found in the “dissertation packets” distributed by the Physics Department.)

In the jargon used in the Physics Department, the old format for a thesis consisting of a single
authored paper was referred to as the “short form”, whereas the more stringent format required for
the extended version of a multiple authored paper was (and still is) called the “long form”. Consequently the change in formatting requirements was described in Physics Department jargon by saying that “the long form is now required for all theses”. Unfortunately, this was widely
misinterpreted several years ago to mean that single authored papers were no longer allowed as
theses! These misunderstandings appear to have been cleared up, although some vestiges may still
remain. Therefore, it should be emphasized that the Department requirements are precisely as stated
in the first paragraph of this section.