

February 2, 2015

CETL/BP Junior Faculty Teaching Excellence Award committee Georgia Institute of Technology Atlanta, GA 30332

Dear colleagues,

I am writing to nominate Assistant Professor Grigoriy (Greg) Blekherman for the CETL/BP Junior Faculty Teaching Excellence Award.

Greg's trajectory is somewhat unusual and bears discussion since it reveals his commitment to teaching at all levels. After earning his PhD in 2005 and beginning a strong research career at Microsoft, Greg had a period of "burnout" where he left academia for a year and a half. In a remarkable act of humility toward making a come-back, he taught at a community college for a semester, where he proceeded to re-establish himself as a researcher and teacher. His teaching then was excellent and provided the foundation for a succession of appointments leading to his current position at Tech.

As the attached documents very clearly demonstrate, Greg is fully committed to excellent instruction. He has a passion for mathematics that inspires his students to make the effort necessary to succeed, even those students who may not expect to do well in serious math courses. He has taught the foundational course Math 1502 (Calculus II) several times, and this has a large impact, both because the course has large enrollments and because it is foundational for so many majors. As the quotes from students show, it is no exaggeration to say that Greg has had a large positive impact on their lives.

Greg has also been very successful at more advanced levels, both undergraduate and graduate, and he organized and lectured at a major summer school in his research area held here at Tech.

Overall, Greg is making a very strong contribution to the educational mission of Georgia Tech. I believe a CETL/BP award would be an excellent way to recognize his achievements so far and motivate him to even greater heights.

Sincerely,

69 2 Ulmer

Douglas Ulmer Professor and Chair

Reflective Statement on Teaching

Grigoriy Blekherman School of Mathematics

My approach to teaching is the result of experiences in a variety of instructional settings, from explaining science to fifth graders to supervising research, from teaching remedial courses in a community college to teaching at a major university. When I first started teaching, clarity of presentation and making the material more accessible and interesting for the students were my first concerns. As I gained more experience, I found that the classroom environment and the attitude of the students are just as important as the material and the manner of presentation.

I jokingly describe doing mathematics research in the following way: "Doing research is like banging your head against the wall. It might be painful and difficult, but one thing is certain: if you don't bang your head, then the wall will never come down". I think this applies equally well to learning, especially acquiring deeper understanding of difficult concepts. Learning mathematics is a hands-on experience. In order to truly understand the material, students have to solve problems on their own. This happens mostly outside of the classroom and office hours, and it is crucial that the students persevere and learn despite struggles.

I want to describe three experiences that reshaped my view of teaching. The first two happened while I was teaching at Kingsborough Community College (KBCC) in Winter and Spring of 2009, and the last one during the Research Experiences for Undergraduates (REU) program at Virginia Bioinformatics Institute in Summer 2010.

When I was teaching a Remedial Math I there was a student who had great difficulty understanding the material. However, she was determined to succeed. When I saw that she was willing to put in the work to overcome her difficulties, I took particular care to encourage her, and to make sure that she saw the improvement that came as a result of her work. She was embarrassed by her struggles and I had to make sure that she was comfortable asking questions in class. I was very patient, explaining her mistakes several times, until she understood the material. By the end of the semester she was one of the better students in the class.

Passing Remedial Math II is a requirement for graduating from KBCC. Once a student who came to me and said "I have taken this course five times already, and I still do not understand much of anything. It is the only course I need to graduate, but I can't continue on taking it much longer. Can you help me?" I offered to meet with her after the class, and I told her that she would also have to do a lot of work on her own, in order to to catch up and pass the class. We met in the library several times a week for about an hour; she worked on problems and asked questions. Once she saw that I was willing to help, and that improvement is possible after hard work, she was convinced that she could do it. She passed the uniform final exam and graduated.

Encouragement and motivation also play a key role in facilitating student participation in research. The REU program lasted ten weeks and the goal was to have students engage in meaningful scientific research that they would be able to present and publish. We deliberately placed a strong emphasis on making sure that the students appreciated that their work was interesting and meaningful. I personally held several meetings with students to explain to them the significance of their proposed research. This turned out to be a key factor, since the students are willing to work much harder when they believe that their work is important. It was great to see the students respond, and in the end all four projects finished with positive results. I do not think we would have achieved the same level of success had we not worked hard on motivating the students.

Fast-forwarding to my time at Georgia Tech, I want to discuss my teaching of Calculus II, Math 1502, which I am now doing for the fourth time. Calculus II is a freshman class in Georgia Tech, and teaching freshmen is a unique experience, which I enjoy. My main concern, besides explaining the material, is to make students think independently. I also want to make the students more curious

about the material. I use several techniques to cultivate a supportive and enjoyable classroom atmosphere and encourage student effort and curiosity.

In my first lecture I usually ask the students what "mathematics" is. Since they have taken mathematics courses for years, this should not be a problem. Yet mathematics is much harder to define than biology, or chemistry, or physics. After a discussion I explain that, in my personal opinion, mathematics is a way of making logical deduction about quantitative concepts, and our main goal in the class is to learn to think properly.

I try to bring humor into the classroom to break up the monotony of lecturing and make students sit up and pay attention. I also believe that by momentarily putting them into a different frame of mind, humor allows students to gain a better perspective on the material. It also makes me more approachable, and students are comfortable asking questions, even in a large class.

I make an effort to be enthusiastic and passionate in front of the students. If I cannot muster enthusiasm about the material, then the students are very unlikely to put in the effort, beyond making their desired grade. Some students find mathematics scary. When I solve problems on the blackboard I often emphasize that the most important thing about doing the problem is not to be scared, and just apply what we have already learned without being intimidated.

I do not pretend that the material or my exams are easy. I often tell students that things will be difficult, but with effort and my help the difficulties can be overcome. I encourage students to come to my office hours, or meet with me outside of the scheduled times. I stress that as long as they are willing to put in the effort, I will put in my time to help them. The students appreciate having an extra resource, and it helps in their determination to tackle the material.

I connect the mathematical topics we discuss with topics outside of mathematics. I discuss philosophy of Malthus when teaching population modeling using differential equations; I discuss Zeno's paradox of Achilles and the turtle when beginning infinite series. I include a lecture on Google PageRank algorithm after covering eigenvalues and eigenvectors, and I discuss linear regression in statistics when covering least squares. While I tend not to use formal words, such as theorem and proof, I strongly emphasize to students that knowing "why" is much more important than memorization. I explain that, even if they do not use the material they learn in the class again, learning to think and to study properly will be an invaluable skill in all of their endeavors.

Test results are the primary avenue by which students gauge their progress in a course. It is extremely discouraging for the students if their hard work does not lead to improvement in the test scores. When I first started teaching I was strongly in favor of difficult tests that would really challenge students' knowledge. One problem with such tests is that typically only the best students get good scores, everyone else gets a similar low score. This outcome strongly discourages all but the best students from studying, since the effort they put in seems unlikely to be rewarded unless their mastery of the material is excellent. My current strategy is to write tests with questions of several levels of difficulty: some questions which I expect to be solved by most students, some questions of intermediate difficulty, and one or two questions that I expect to be challenging to almost all of the students. Student performances on these tests give a much better picture of their level of understanding. This strategy also rewards student effort much better: if a student's understanding has improved, then there is a good chance that the improvement will be reflected in the test score.

I received nine "Thank a Professor" notes from different students in my undergraduate courses from the Center for Enhancement of Teaching and Learning. Here are some comments from the "Thank a Professor" emails my students sent me:

Thank you for showing me that I'm capable of handling college calculus. It's always reassuring to have a teacher that gets you to do the things that you didn't think you could. It means a lot to me that you coax "magic" out of us, and make us enjoy doing so.

Jon, Math 1502 Fall 2013

Professor Blekherman,

When I came to Georgia Tech, I was afraid that no one could measure up to my high school AP Calculus teacher. We shared a love of mathematics that was unmatched. However, the first day I sat down in your class, I was amazed to find that you shared her passion for mathematics and truly enjoyed sharing it with the class. Although I sit near the back and tend to gossip with my friends and, more often than I am proud of, take naps, I appreciate that you put the time and effort into making Calc 2 interesting and accessible for everyone. Thank you for reminding the majority of us why we're at Tech becoming engineers: because we love to learn, discover, and understand things that confuse us. Calculus is one of those confusing things, and without your help this semester, I truly feel I would not have gotten so much out of the class. Thank you for being you! Emma Heaslet, Math 1502 Fall 2013

Dr. Blekherman,

Thank you for being such a fantastic professor! Every lecture that you taught was helpful, informative, and entertaining. All of your explanations were in-depth enough to help me understand the material, but not crazy in-depth that you would lose me. Thank you for taking the time to go back and explain concepts when you knew our class was confused, and for working hard to ensure that our class succeeded.

Unless I change my major, this will probably be my last "real" math class, and so I feel fortunate to have had such a great professor teaching me. Thank you once again for all that you have done! Happy Holidays!

Courtney Wildjaja, Math 1502, Fall 2011

Dear Dr. Blekherman,

Somebody said that a great teacher gives his students something to think about besides homework. Although you always urged us to do homework as many as possible, you also offered practical and philosophical advices, beyond the textbook. I appreciate how you tried to help us understand the concept, not merely know how to follow the steps. I believe that if you had more time, you would have addressed more abut the applications of the math we learned. You have a great sense of humor, too. Your practice problems were always hard, but your quizzes and tests were fair. Thank you for being a great Math professor. I wish I could learn Cal 3 with you.

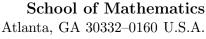
Best wishes,

One of your hundreds of students, Math 1502, Fall 2011

Dear Professor Blekherman,

Hello, this is Marissa from Spring 2012's MATH 2406-T class. I just want to say thank you for your efforts to explain the difficult concepts. I have to admit, this was a really difficult class because the concepts and teaching approach is so much more abstract than the approach I was familiar with. Before taking this class, I had learned linear algebra that involved matrices, so it was very difficult to make the transition to a more abstract level. Though it was difficult I have learned a lot from your lectures, and I appreciate it when you answered my many questions and explained concepts I did not fully understand – whether it is by email or during office hours. So thank you very much for being an amazing professor and have a great summer!

Marissa Hsiao, Math 2406, Spring 2012



January 31, 2015

Atlanta, GA 30332–0160 U.S.A. PHONE 404-894-2700 FAX 404-894-4409

Dear Selection Committee:

Georgialnstitute

of **Tech**nology

I am pleased to write in very strong support of the nomination of **Greg Blekherman** for the **CETL/BP Junior Faculty Teaching Excellence Award**. Prof. Blekherman has been a truly outstanding teacher and mentor since his arrival at Georgia Tech in the Fall of 2011. He has taught classes ranging from Freshman calculus to advanced graduate topics courses, all with the common theme of actively engaging his students and masterfully conveying difficult ideas to them.

Since Prof. Blekherman's arrival here at Georgia Tech I have been his teaching mentor in the School of Mathematics. That means for each of his courses I look over the class syllabi, tests, and final grades. I also observe some of Prof. Blekherman's classes. From this I can get a very good impression of how he is as a teacher and help him if there are any problems or concerns. However in Prof. Blekherman's case I have had very little input since he is an excellent teacher.

The heart of teaching happens in the classroom. So let me describe my visits to Prof. Blekherman's classes. I have observed classes in Prof. Blekherman's graduate topics course in the Fall of 2012 and Calculus II class in the Fall of 2013. (I have also seen numerous research presentations from Prof. Blekherman that reinforce my impressions from the classroom.) My first impression of Prof. Blekherman's classes was the impressive attendance. Graduate topics classes in mathematics are usually quite small, but in Prof. Blekherman's class there were 15 students attending even late into the semester. In large calculus classes attendance (unless mandatory) usually falls off quite quickly after the start of the semester, but in Prof. Blekherman's class of over 100 students there was certainly in excess of 95% attendance (I have great attendance in my calculus classes, but it rarely hit that number after the first few weeks). After sitting in Prof. Blekherman's classes it becomes clear why students flock to his classes; it's because he is an exceptional lecturer. He uses humor in all his classes, engages students with questions, and has set up an environment where students are comfortable to ask questions (which they frequently do). In addition the material Prof. Blekherman presents is well organized and thought out, highlighting key features and only getting into technical details when necessary. He is also very good at gauging his audience and presenting his lectures just right for the majority of students in the class.

Prof. Blekherman's clarity in class was highlighted by my visit to his graduate class. This was an advanced class outside my area of expertise and I visited several months into the semester. Given this I expected to understand little of the content of the lecture, but I was pleasantly surprised that I could follow the main ideas and actually get something out of the class. This really was amazing and a testament to Prof. Blekherman's thoroughness and care he puts into his classes.

Prof. Blekherman's dedication to teaching and his students goes well beyond the classroom. While I have not observed this in person, looking at the comments students make about his class and the many "Thank a Teacher" notes he has received it is clear that Prof. Blekherman expends a great amount of time and care on his students in office hours and other meetings he has with them.

Faculty with the huge dedication to students and teaching and the exceptional talent at lecturing that Prof. Blekherman has are few and far between. The School of Mathematics has many exceptional teachers, but Prof. Blekherman is clearly a standout even among his top peers. Prof. Blekherman is most certainly deserving of the CETL/BP Junior Faculty Teaching Excellence Award and I most highly support him for it.

Sincerely.

John B. Etnyre, Professor and Associate Chair for Graduate Studies



Xingxing Yu School of Mathematics Atlanta, GA 30332-0160 Phone: (404) 894-4757 Fax: (404) 894-4409 Email: yu@math.gatech.edu

January 29, 2014

Dr. Esther Jordan, The Center for the Enhancement of Teaching and Learning Georgia Tech Atlanta, GA 30332

Dear Dr. Jordan:

I am writing to you in my capacity as the Director of Teaching Effectiveness (DOTE) in the School of Mathematics, to provide supporting material for the nomination of Professor Greg Blekherman for the CETL/BP Junior Faculty Teaching Excellence Award.

Prof. Blekherman began his tenure-track employment in the School of Mathematics in August 2011. He taught

- MATH 1502 (Calculus II, with 172 students) in Fall 2011,
- MATH 2406 (Abstract Vector Spaces) in Spring 2012,
- MATH 1502 (with 176 students) and MATH 8803 (a graduate level topics course on convex geometry) in Fall 2012, and
- MATH 1502 (with 199 students) and MATH 6121 (Algebra I) in Fall 2013.

MATH 2406 is a core course required for the mathematics majors, and MATH 6121 is a core course in our graduate program.

Professor John Etnyre is the Faculty Advisor for Prof. Blekherman. Prof. Etnyre visited his 8803 class on November 28, 2012, and his 1502 class on September 19, 2013. Since Prof. Etnyre was on sabbatical in Fall 2011, Professor Tom Trotter visited his 1502 class on October 27, 2011. Both Prof. Etnyre and Prof. Trotter rated Prof. Blekherman as "good" to "excellent" on all aspects of teaching, including presentation and content of lecture, and student-instructor interaction. In particular, in his report on 1502, Prof. Etnyre commented on the aspect of personal behavior and interaction with students:

Excellent! The class was almost completely full. I do not know if I have ever seen a large class like this so full so late in semester. Clearly, a great rapport with students.

Prof. Blekherman maintains a detailed and useful course web page that include homework assignments and a variety of other supporting materials, such as course calendar, his notes on certain topics, and practice problems for exams.

A summary of Prof. Blekherman's CIOS scores is attached. His scores on effectiveness are 4.49/5 at the undergraduate level (467 responses from 572 students) and 4.48/5 at the graduate level (23 responses from 50 students). His score at the undergraduate level is

particularly impressive, as almost all of it comes from large undergraduate service courses with a very high response rate. I should also mention that Prof. Blekherman received nine Thank-a-Professor certificate from students (through CETL), and was invited by students to Thank-a-Professor lunch and Meet-a-Faculty lunch.

In addition to his classroom teaching, Prof. Blekherman has made contributions to other aspects of our educational mission. He gave presentations to our undergraduate students on how to apply to graduate programs in mathematics, as well as presentations in MATH 4801 (Undergraduate Seminar) and the Research Horizons seminar (for graduate students). Prof. Blekherman has served as a teaching mentor for two graduate students (Daniel Bernucci and Fabio Difonzo), and offered a reading course to one graduate student (Thao Vuong) on some topics in convex and real algebraic geometry. He co-organized an IMA PI Summer Program on "Algebraic Geometry for Applications", with over 50 graduate students attending. Prof. Blekherman has also served as research mentor for two postdocs (Salvadore Barone and Rainer Sinn). He has recently received an NSF CAREER AWARD, which requires a strong educational component.

To summarize, Prof. Blekherman is an excellent teacher at both undergraduate and graduate levels. He is contributing strongly to many aspects of our educational mission. In particular, Prof. Blekherman taught the large service course MATH 1502 three times during four semesters. His willingness to teach service courses and his success in doing so are especially commendable. I believe that Prof. Blekherman will continue to be a very important participant in our educational mission, and deserves the CETL/BP Junior Faculty Teaching Excellence Award.

Yours sincerely, Xingxing Yu

Director of Teaching Effectiveness

In the table, the numbers after the heading "Undergraduate" and "Graduate" refer to the total number of responses (sample) versus the number of students (class size).

- 1. Mechanics. This is a summary of the responses to the questions "Clarity in discussing and presenting course material", "Ability to stimulate student's interest", and "Activities and assignments facilitated learning',
- 2. Interaction. This is a summary of the responses to the questions "Respect and concern for students", "Enthusiasm about teaching the course", "Availability for consultation", and "Helpfulness of feedback on assignments".
- 3. Fairness. This is a summary of the responses to the questions "Clearly communicated what is required to succeed in this course" and "exams and assignments measured your knowledge and understanding".
- 4. *Effectiveness*. This is a summary of the responses to the questions "The instructor was an effective teacher" and "The course was effective".

Item	Undergraduate, $467/572$	Graduate, $23/50$
Mechanics	4.20/5	4.39/5
Interaction	4.38/5	4.61/5
Fairness	4.47/5	4.24/5
Effectiveness	4.49/5	4.48/5

CIOS Evaluations Summary: Professor Greg Blekherman

Date: Tue, 27 Jan 2015 21:24:24 -0500 (EST) From: "Semrau, Jack K" (jack.semrau@gatech.edu) To: yu@math.gatech.edu Subject: Dr Blekherman Award

I would be more than happy to write a few words about Dr. Blekherman

To be upfront right away, I don't think I could have passed Calculus II here at Tech had it not been for Dr. Blekherman. I was taking his course in the Fall of 2013, my first semester, and my work ethic then was subpar to say the least. I was quite confident that Calc II would be easy and stopped going to as many lectures; I soon realized that this caused me to do very poorly. I was afraid of failing with about 4 weeks left in the semester, so I sought out Dr. Blekherman in his office hours and we talked and came to the conclusion that the way I studied and learned had to change and adapt for my needs. The reason why I think Dr. Blekherman is a such great teacher is because he saw that and was instantly able to give me both positive and useful feedback. With this in mind, I studied much more rigorously and went to class everyday again; by the end I managed to pull what seemed like an unsalvageable grade up and pass. Now I am in my Differential Equations course that is a breeze thanks to the methods for Linear Algebra I learned in Dr. Blekherman's course.

Thank you for reading and I hope you win it!

Sincerest Greetings! Jack K. Semrau B.S. Aerospace Engineering Candidate Georgia Institute of Technology, '17 GT Student ID: 902-988-222 Contact: (404)908-2984

Date: Tue, 27 Jan 2015 21:42:06 -0500 From: Kevin Park (kevin38424@gmail.com) To: yu@math.gatech.edu Subject: CETL/BP Junior Faculty Teaching Excellence Award to Professor Blekherman!

Dr. Yu,

Hi, my name is Kevin Park-Lee and I was in Dr. Blekherman's class in Fall 2013. I think he is 'the best' math professor I have ever taken. Even though there were weekly quizzes in his recitation, I found out that those were the reason I could get motivated for studying. His lectures were enjoyable and well-structured so that I could learn step by step from a basic principle. I believe everyone should had thought that. His excellence in teaching could make me to become a great tutor for CALC II in LAP (Learning Assistant Program) and I am really thankful that I could meet a great math professor in my life!

Sincerely, Kevin Park-Lee Chemical and Biomolecular Engineering, GT Class of 2017 Date: Wed, 28 Jan 2015 08:20:32 -0500 (EST) From: "Broderick, Zachary" (zbroderick3@gatech.edu) To: yu@math.gatech.edu Subject: Professor Blekherman Teaching Award Nomination

With three semesters at Georgia Tech under my belt, I can easily say that Professor Blekhermans calculus II class is one of the best classes I have taken thus far. I remember on the first day of class, Professor Blekherman asked us What is math? and no one could really give the correct answer. What makes Professor Blekherman a great teacher is the fact that he wants his students to actually understand the what and the why of math instead of just the how. Unlike so many other professors who make you memorize equations, Professor Blekherman took the time to make sure we knew the concepts behind why certain equations worked. After finishing Professor Blekhermans class, I learned much more than just calculus. I learned a more effective way to approach new material which involved asking questions and understanding the core concept behing why something works. I would recommend Professor Blekherman to anyone and I am very fortunate to have had him as a professor.

Zachary Broderick Georgia Tech BSME '17

Date: Wed, 28 Jan 2015 03:18:16 +0000 From: JP Addison (johnpaddison@gmail.com) To: yu@math.gatech.edu Subject: Teaching Award Nomination – Professor Blekherman

Hello,

Prof. Blekherman informs me that he has been nominated for a teaching excellence award. I fully believe he is deserving of the honor. The fact that I am writing this 2 years after taking his class and after my graduation indicates the strong memory of quality teaching from Prof. Blekherman. I can think of few professors who demonstrated as much care for their students and of those only he translated that care into attention to detail in every aspect of the course.

I took his abstract vector spaces class as a Physics major wanting to improve my understanding of the underpinning to the physics theory I was learning. I came away with not just the ability to use the subject, but an intuition about it that was invaluable to my research in quantum computation. I hope you strongly this excellent candidate for the award.

Thanks,

JP Addison Physics '14 Date: Wed, 28 Jan 2015 12:34:58 -0500 From: Tyler Quill (tquill31@gmail.com) To: yu@math.gatech.edu Subject: Greg Blekherman Nomination

To who it may concern,

I had Professor Blekherman in Math 1502. He was by far the best math professor that I have had since coming to Georgia Tech. His combination of sense of humor and his conceptual approach to teaching really helped me exceed in the course. I got the sense that he genuinely cared about his students and he was always willing to give help whenever asked. I definitely learned more in his course than I have in any other course here at tech. He definitely deserves this award.

Tyler Quill Georgia Institute of Technology Materials Science & Engineering Lambda Chi Alpha Fraternity — Social Chair Porex Corp. — Product Development Co-Op Freshman Activities Board Sophomore Advisor

Date: Sat, 31 Jan 2015 19:31:34 -0500 (EST) From: "Mohammadi, Hamid" (hmohammadi6@gatech.edu) To: yu@math.gatech.edu Subject: Greg Blekherman

Dear Professor Yu,

Hi, Professor Blekherman was my instructor in Abstract Vector Spaces (math 2406). He was well prepared, organized, knowledgeable and always willing to help the students during the class or during office hours. He was welcoming and approachable and I was very comfortable with going to his office hours with regard to any kind of trouble in understanding the course materials. Professor Blekherman was able to teach an abstract topic in a manner interesting to all students, usually incorporating humor in his lectures. I believe he is a perfect candidate for CETL/BP Junior Faculty Teaching Excellence Award.

Best, Hamid Mohammadi 902870256 Date: Sat, 31 Jan 2015 10:55:16 -0500 (EST) From: "Hoque, Sayem M" (sayem.hoque@gatech.edu) To: yu@math.gatech.edu Subject: Dr. Blekherman Statement

To Whom It May Concern:

My name is Sayem Hoque and I am a second year undergraduate in the College of Computing at Georgia Tech. I wanted to write a short statement about my Math 1502 class during Fall 2013 at Georgia Tech, instructed by Dr. Blekherman. This was the first mathematics course I had taken at Georgia Tech after high school, as I had just entered as a Freshman in August. I took calculus during my junior year of high school, so when I entered Georgia Tech it had been a while since I formally took a math course - so at first I felt behind when our instructor started off with some differential equations. I went to office hours to get some extra help when I got lost early on and Dr. Blekherman never got frustrated when I asked questions whose answers I quite frankly should have known before taking the course. Throughout the semester I found Dr. Blekherman always available during his posted office hours, and I used that later on in the semester when learning linear algebra.

Dr. Blekherman always referred to upcoming tests and quizzes as an upcoming "opportunity" for us students to prove what we have learned thus far. I think our tests were very comprehensive and after getting a B or C on the first test, I realized I couldn't skip studying for difficult material and hoping that it would not be on the exam. I did much better on the following exams and quizzes and ended up with an A in the class, so I think the class was fair in that there was one exam a student could mess up and still have the opportunity to come back. I think Dr. Blekherman did a really nice job of making sure students were engaged by asking us plenty of questions, and he even walked around sometimes checking our work if he put a problem on the board. This was my favorite class since I have been at Georgia Tech; taking this and subsequent math courses has made me want to either minor in Mathematics at Tech or try to double major, but I have to see my adviser about that first.

Sincerely, Sayem Hoque College of Computing Undergraduate Georgia Institute of Technology Date: Sat, 31 Jan 2015 22:05:21 -0500 From: Laura Winalski (Lcwinalski@comcast.net) To: yu@math.gatech.edu Subject: CETL Junior Faculty Teaching Excellence Award

Good Evening, Professor Yu,

I apologize for the last minute submission of this endorsement, but I recently learned that Professor Greg Blekherman has been nominated for the CETL/BP Junior Faculty Teaching Excellence Award. I was a student of Professor Blekherman's last fall for Calculus II, and I must say, he was without a doubt, one of the best professors I have ever had. Each of the lectures were an hour and a half in length, and every fifteen minutes or so, Professor Blekherman would stop for questions. Before clearing a board of notes, he would ask whether or not everyone had finished copying the material. When students were struggling with a certain topic, he would take the necessary time to explain in more detail or rephrase the material in a different way. He would gauge how comfortable the class was with a given topic by taking polls and advancing only when the majority felt comfortable. He was engaging and concise, able to explain difficult material seemingly with ease, and most importantly, with patience. Furthermore, Professor Blekherman's syllabus was exceptionally useful, having outlined the entire semester, lecture by lecture, and elaborating on where material for each lecture could be found in the textbook. Professor Blekherman was even more exceptional one-on-one in office hours. I visited his office at least once every two weeks and he never seemed bothered by the frequency of my visits. Rather, he thanked me for staying on top of the material and encouraged me to continue trying my hardest, even when I was struggling. He offered a plethora of resources (and confidence/motivation!) to help prepare for exams and was generous with his time.

Not only did Professor Blekherman work hard to ensure students understood the difficult material, he took time to ensure my fellow peers and I were grounded and not too overwhelmed by our work. He frequently opened class reminding us that Calculus II was not the be-all and end-all; he spoke of the beauty of failure, often reminding us that more important than earning an A was learning how to think and solve problems. It was rewarding to leave class each day knowing that I was not only becoming a better mathematician, but a better student, a better thinker, and a better future employee. He illustrated how the discipline required to master Calculus II applies to all aspects of life. Additionally, Professor Blekherman would apply the mathematical material that often felt abstract to something concrete in our daily lives. For example, when discussing algorithms, Professor Blekherman set aside the textbook and discussed the workings of Google's algorithm. For many of my friends and me, this helped us to see the big picture and stimulated/maintained our interest in the material. I have yet to find another professor who has been able to take what may seem as dry material and illustrate the beauty of it in such a remarkable way. I am truly grateful for all that Professor Blekherman taught me - both about Calculus II and life. I feel fortunate, even honored, to have been one of his students and am confident he is an excellent candidate for this award. I have applied the problem solving skills I acquired in his class to all of my other courses and it has helped me tremendously. I cannot say enough about how excellent of a professor he was, and I'm sure, continues to be. I sincerely hope he is considered in detail for this award.

Should you have any questions regarding my statement of support, please feel free to email me.

With the utmost respect and highest regards, Laura Winalski Biochemistry 2017 Georgia Institute of Technology