

Fiscal cliff on the horizon

MIT prepares for federal research cuts

By Anthony Yu
STAFF REPORTER

Unless Congress can come to a compromise regarding the fiscal cliff before the start of 2013, MIT could face up to a 10 percent cut in its federal research funding, affecting both students and faculty. The fiscal cliff refers to the mandate set by the Budget Control Act of 2011 that the Joint Select Committee on Deficit Reduction agree on a \$1.2 trillion deficit reduction package by Nov. 23, 2011; otherwise, roughly \$400 billion in immediate budget cuts, or sequestration, automatically become effective in 2013.

In an email to *The Tech*, Associate Provost Claude Canizares said, "It's encouraging to see that the President and Congressional leadership want to do something to avoid the 'fiscal cliff,' but we'll just have to wait and see if they can succeed in finding a compromise. Until then, the uncertainty and risk remain."

In fiscal year 2012, MIT's total campus research expenditures totaled \$681 million — not including Lincoln Lab's \$846 million. Federal funds accounted for \$473 million of that amount, which includes extra funding from the American Reinvestment and Recovery Act, the \$787 billion dollar stimulus

Fiscal cliff, Page 10

Houston for Commencement

Dropbox CEO will be youngest speaker in history

By Leon Lin
STAFF REPORTER

Drew W. Houston '05, co-founder and CEO of Dropbox, the online file storage service, will be the keynote speaker for the graduating class of 2013 at MIT's 147th Commencement on June 7, 2013. While Khan Academy founder and 2012 speaker Salman A. Khan '98 was MIT's youngest commencement speaker in at least 30 years, Houston is even younger at 29 years of age. He won't be more than a couple of years older than many of the addressees receiving graduate degrees.

Houston graduated from MIT with a Bachelor of Science in Computer Science and Engineering (Course 6-3) in 2005. While at MIT, he spent his summers working at startups, and took a leave of absence during his junior year to work at Bit9, a cybersecurity firm. He then started Accolade, an SAT prep company, which he managed while working for Bit9. Houston continued his work at both places after graduating from MIT. About a year later, Houston came up with the idea for a cloud-based file storage website that would allow users to syn-

chronize folders on their computer with other devices via the Internet. He was joined by Arash Ferdowsi, a student who left MIT to work with him, and in 2007, Dropbox was born.

Houston says that part of his inspiration for Dropbox came from the MIT's Athena system, which allows students to access their files on any of the Athena computers across campus. Houston said his goal was to do this for "the world."

Dropbox has proved to be wildly successful. Last year, the Silicon Valley company appeared on the cover of *Forbes*, and today it boasts tens of millions of users. Here on the East Coast, the company has become a symbol of the tech start-up culture at MIT, where students walk down the Infinite with the telltale translucent blue boxes prominently displayed on their t-shirts.

"Building Dropbox has been the most amazing experience of my life, and I'm really excited to share the experience and what I've learned in this whole journey," Houston said.

"Starting a company is a very mysterious process," Houston added. But he did hint that he was saving up advice for the

Houston, Page 6



CHAD RILEY

Drew W. Houston '05, co-founder and CEO of Dropbox, will be the keynote speaker at this year's Commencement ceremony.

\$25 million for international development initiatives

Funding from USAID will support projects in DUSP, D-Lab, Sloan, ESD, Course 2, and the PSC

By Stephen Suen
STAFF REPORTER

MIT will receive up to \$25 million in funding from the U.S. Agency for International Development (USAID) as one of seven university partners

in a newly-launched Higher Education Solutions Network. The network aims to engage institutions of higher education in addressing global development challenges. USAID Administrator Rajiv Shah hopes this initiative will "recapture the legacy of science, technology and innovation

as core drivers of development — as well as inspire and support the next generation of development leaders."

MIT's involvement in the USAID program consists of two initiatives and will feature participation from various departments, centers, and schools around the Institute.

First, the Department of Urban Studies and Planning will lead the Comprehensive Initiative on Technology Evaluation (CITE), dedicated to developing a methodology for evaluating technological solutions for the developing world. This enterprise will be supported by D-Lab,

Engineering Systems Division, the Sloan School of Management, the Department of Mechanical Engineering, and the Public Service Center.

The CITE project will utilize a

USAID, Page 6

IN SHORT

The Senior Gift Challenge kicks off this Thursday at 7:30 p.m. in the Bush Room! Details at <http://web.mit.edu/senior-gift>.

Did you miss MITHenge this weekend? You have another chance to catch the sunset in the Infinite today at 4:22 p.m.

Want to meet the MIT students who inspired the film *21*? Check out LSC's free screening of the film tonight at 7:00 p.m. in 26-100, hosted by Jeff Ma and Ben Mezrich.

Have you ever wanted to spend a year studying in England? The final Cambridge-MIT Exchange info session will be held this Wednesday at 7:00 p.m. in the Maseeh Private Dining Room.

If you take the Red Line between Harvard Square and Alewife on weekends, shuttles will replace train service between these stations for the next four weekends, ending on December 9.

Send news information and tips to news@tech.mit.edu.



MANOHAR SRIKANTH—THE TECH

The MIT Logarithms perform at the 7th annual Katwalk last Friday. Katwalk, put on by Kappa Alpha Theta, is a philanthropy fashion show whose profits go to the Boston chapter of Court Appointed Special Advocates (CASA), a group that trains volunteers to aid children involved in abuse cases.

A PLANKTON OF PROBLEMS

How plankton taught one student to break out of mental bubbles. **CAMPUS LIFE**, p. 14

DEPRESSURIZING THE COOKER

MIT needs to change its culture of self-imposed stress. **LETTERS**, p. 4

THE CHANGE WE DON'T NEED

Why the GOP can shrug off the results of election cycle 2012. **OPINION**, p. 4



INSTITUTE DOUBLE TAKE: FALL EDITION

Capturing the seasons in transition. **PHOTO**, p. 8

SOCCER SUCCESS

Women's Soccer triumphs over TCNJ to advance to round three of the NCAA's. **SPORTS**, p. 15

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“I’m so hosed this week—I have two psets, a quiz, and a paper.”

“Yeah? Well, I’ve got three psets, two papers, a project presentation, two exams... and I have to go into lab.”

Sound familiar?

***The Tech* wants to hear about your experiences with stress at MIT.**

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Institute receives \$25 million grant from USAID

Funds will support international development research, student projects, design summits

USAID, from Page 1

three-pronged framework for the assessment of poverty-alleviating technologies, evaluating them according to the criteria of suitability, scalability, and sustainability. The goal of this methodology is to help donors and policy makers identify and invest in the technological innovations that will make the greatest impact.

Second, D-Lab will lead a consortium of higher-education institutions in creating an International Development Innovation Network (IDIN)

to “establish and nurture a global network of local innovators using technology to address issues facing people living in poverty.” This project will involve twelve international design summits and the creation of eight “Innovation Hubs” focused on technological development.

With the new USAID support, D-Lab founder Amy Smith said, “We can harness the alumni of IDDS [the International Development Design Summits] as a kind of an extremely diverse and dispersed design consultancy.” By connecting technologists and community

partners around the world, IDIN exemplifies the D-Lab mantra of “creative capacity-building,” which advocates the fostering of local innovation. This philosophy characterizes people in the developing world not as passive beneficiaries of new technologies, but as active members of the design process. As a result, the resulting innovations are informed by local knowledge about geographic conditions and cultural factors, and are more sustainable in the long run.

Moreover, the USAID grant will allow for longer-term maintenance

of D-Lab student projects initiated during field trips to developing countries in Africa, Latin America, and Asia. The new funding will enable students to transition these projects into sustainable organizations by utilizing local talent and entrepreneurship.

At the formal launch event for the Higher Education Solutions Network, U.S. Secretary of State Hillary Clinton emphasized the Obama administration’s commitment “to elevate development alongside diplomacy and defense” as the “three Ds” of U.S. foreign policy and national

security. Clinton also posed the challenge to grant recipients, “How can we ensure that this is not just a series of individual grants or one-off accomplishments, but instead we create an integrated network that delivers large scale impact?”

By taking a holistic approach focused on local capacities, the CITE and INIT programs hope to offer an answer to this question — albeit one that breaks the mold of building roads or schools. With the USAID grant, these initiatives may come to redefine the model of international development.

Houston to speak in 2013

Dropbox CEO promises startup & life advice

Houston, from Page 1

commencement speech, so students seeking entrepreneurial advice need not give up hope. Houston has spoken about his experience in startup how-to talks at other venues before. His story about going from a single idea inspired on a train ride to garnering tens of millions of users is already known. The story of getting seed money from Y Combinator and eventually declining an offer from Steve Jobs is already famous.

Houston credits some of his success to his years at MIT, where he gained engineering and leadership experience through his coursework and at Phi Delta Theta.

Recently, he’s had a chance to be reminded of the pragmatic heedlessness his alma mater is known for. On October 16, Dropbox launched a “Space Race” competition to promote

their product in universities. Participating schools competed to get the most number of users to sign up, and students at the winning school would receive extra space on their

for dinner when I was in town about a week or two ago,” he told *The Tech* yesterday. “We have to preserve the integrity of the contest — we don’t want to let people just cheat,” he add-

Houston credits some of his success to his years at MIT, where he gained engineering and leadership experience through his coursework and at Phi Delta Theta.

Dropbox accounts. A few days into the race, several larger overseas schools had beaten MIT’s early lead. In response, a couple of students from Burton-Conner hacked the system by creating thousands of Dropbox accounts and automating the process of scoring points in the Space Race. Soon, MIT was back at the top of the leaderboard.

“I love the creative spirit. I actually took those guys out

ed after a pause. “But if these kinds of shenanigans were to happen with Space Race, I had hoped that they would come from MIT first.”

Houston also hopes that MIT students will come out of school with larger goals in mind. “I don’t think MIT graduates realize how much the world needs them to go out and build things, and how well trained they are to do so,” he said.

Past Commencement Speakers

Date announced by <i>The Tech</i>	Speaker
2013 Nov. 13	Drew W. Houston, CEO and founder of Dropbox
2012 Dec. 6	Salman A. Khan, founder of Khan Academy
2011 Nov. 9	Ursula M. Burns, CEO of Xerox
2010 Mar. 16	Raymond S. Stata, cofounder of Analog Devices
2009 Feb. 10	Deval Patrick, Massachusetts Governor
2008 Dec. 7	Muhammad Yunus, 2006 Nobel Peace Prize winner
2007 Mar. 13	Charles M. Vest, former MIT president
2006 Dec. 13	Ben S. Bernanke, chairman of Federal Reserve Board
2005 Apr. 12	Irwin Jacobs, co-founder/chairman/CEO of Qualcomm
2004 Mar. 9	Elias Zerhouni, Director of NIH
2003 Apr. 1	George Mitchell, former U.S. Senator
2002 Feb. 26	James Wolfensohn, President of the World Bank
2001 Mar. 23	Daniel Goldin, NASA Administrator
2000 Mar. 14	Carly Fiorina, President & CEO, HP
1999 Apr. 2	Tom & Ray Magliozzi, MIT alumni and hosts of NPR’s “Car Talk”
1998 Feb. 24	Bill Clinton and David Ho, AIDS researcher
1997 Jan. 29	Kofi Annan, UN Secretary-General
1996 Mar. 1	Albert Gore, U.S. Vice President
1995 Apr. 21	Hanna H. Gray, President Emeritus of the University of Chicago
1994 Feb. 15	Karim Aga Khan IV, spiritual leader of the Shia Ismaili Muslims

Compiled by Michael McGraw-Herdeg, Joanna Kao and Leon Lin, updated from 2010

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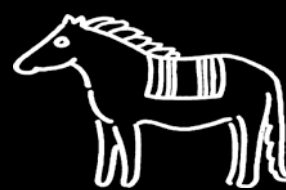




Photo ©Studio Tomás Saraceno. Tomás Saraceno, Cloud City at the Metropolitan Museum, New York, 2012

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Solution to Crossword

from page 12

P	A	B	L	O	A	D	A	P	T	U	H	F						
E	L	R	O	Y	G	E	I	C	O	N	A	H						
S	P	A	C	E	N	E	E	D	L	E	D	N	A					
C	I	T	I	Z	E	N	A	I	M	E	D							
I	N	T	S	C	R	U	B	N	U	R	S	E						
E	Y	R	E	Y	I	N	G	D	A	Y								
					O	K	S	C	I	A	O	O	W					
					S	W	E	E	T	N	O	T	H	I	N	G	S	
					P	T	A	S	P	O	T	A	L	E				
					J	A	R	S	U	T	E	S	O	D	A			
					S	C	R	E	E	N	N	A	M	E	R	U	B	
					C	A	C	A	O	I	M	I	T	A	T	E		
					R	A	N	S	I	L	E	N	T	N	I	G	H	T
					A	T	T	E	R	O	D	E	C	L	I	O	S	
					T	O	Y	D	E	G	U	M	H	E	N	R	Y	

Solution to Techdoku

from page 13

5	2	6	3	4	1
2	5	3	6	1	4
6	3	1	4	5	2
1	4	2	5	6	3
4	1	5	2	3	6
3	6	4	1	2	5

Solution to Sudoku

from page 13

3	6	8	5	7	2	4	9	1
9	7	2	1	3	4	5	8	6
5	4	1	9	8	6	7	3	2
8	1	7	4	2	5	3	6	9
2	9	5	6	1	3	8	4	7
4	3	6	7	9	8	1	2	5
7	5	3	2	4	9	6	1	8
1	2	4	8	6	7	9	5	3
6	8	9	3	5	1	2	7	4

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Emma L. Frank '15 and Stephen D. Johnson '15 perform during Roadkill Buffet's "A Show of Hands" on Friday night.

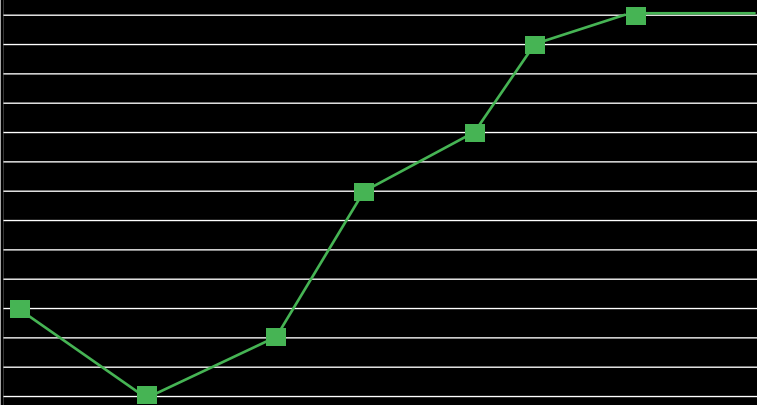
TAMI FORRESTER—THE TECH

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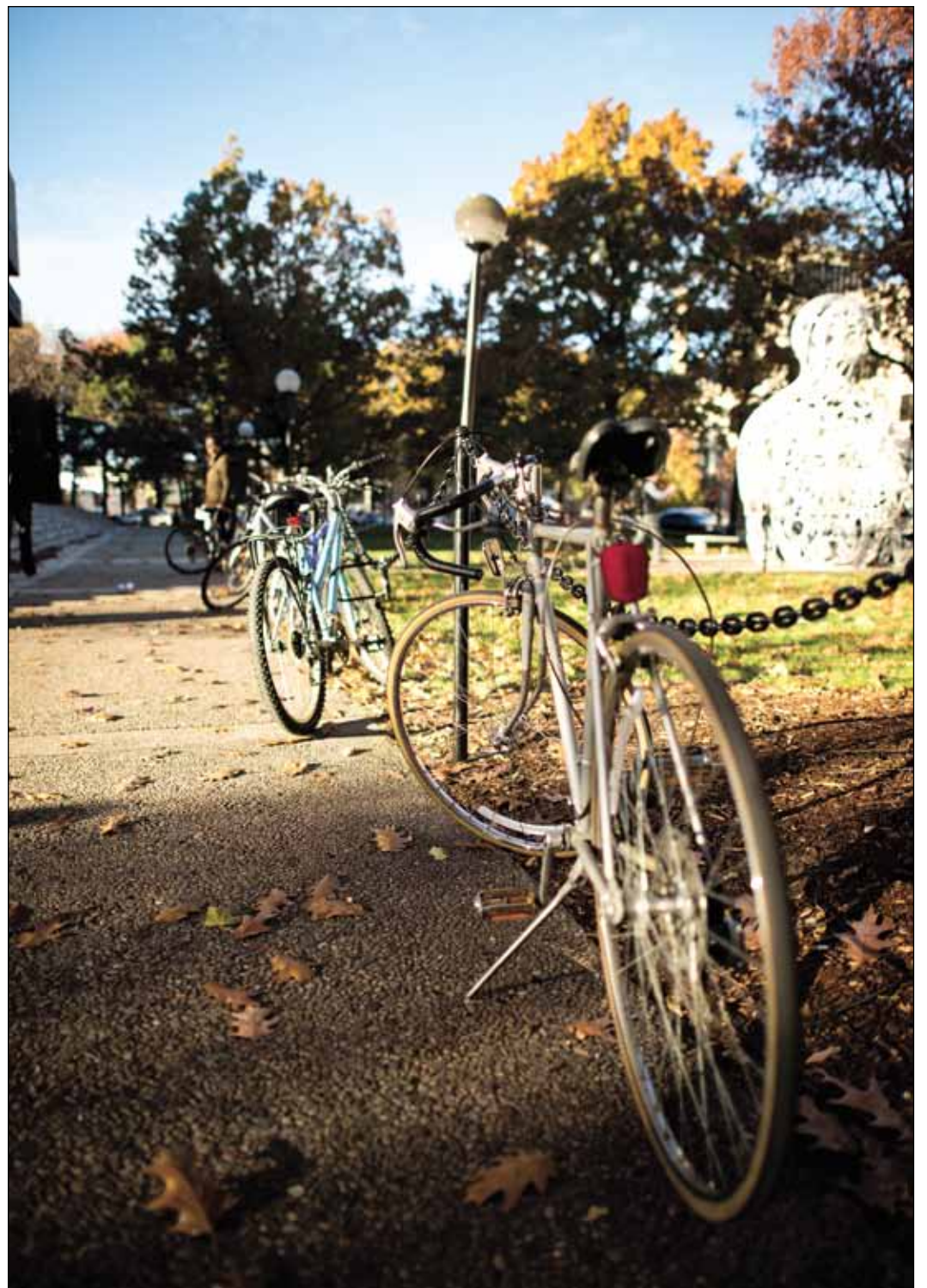
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Institute Double Take



By Jessica L. Wass
PHOTO EDITOR

Bicycles chained up outside the student center combined with a shallow depth of field provided for an interesting sight last Sunday. The fall colors in the background lend a colorful atmosphere to the photo, much as the changing leaves have done to all of campus this fall.

Aperture:
f/1.4
Exposure Time:
1/5000 sec.
Sensitivity:
ISO 400
Effective Focal Length:
24 mm



MELISSA RENÉE SCHUMACHER—THE TECH

On Sunday afternoon in the third floor hallway above the Infinite Corridor, onlookers experienced “MIThenge,” the twice-yearly phenomenon in which the setting sun aligns with the Infinite Corridor.



JASWANTH MADHAVAN—THE TECH

Members of MIT Swara perform at the Diwali Night celebrations held in Kresge on Sunday. The instrument pictured is the Veena, a plucked string instrument that is an essential component of India’s classical Carnatic music.

Want to know what’s going on between issues of *The Tech*?
Find out what’s happening right now at
<http://techblogs.mit.edu>.



MIT could see up to 10% cuts in federal research funding

Associate provost says MIT can weather fiscal cliff, but urges researchers to plan for budget cuts

Fiscal cliff, from Page 1

package passed in 2009.

The Institute has fared rather well despite the research spending reductions in the federal budget in 2011 and 2012. According to slides from an October faculty meeting, MIT had a 8.7 percent jump in federal funding (without ARRA funding) in the last three years. With the sequestration, funding will be reduced to levels similar to those from two to three years ago, not including stimulus funds. MIT's projected federal research budget after the sequestration is \$428.8 million, down from \$473 million. According to Canizares, the faculty expects current grants will be cut either 9.4 percent or 8.2 percent.

Canizares said that the Institute should be able to weather the changes, though individuals should remain cautious. "The sequestration is not a fatal catastrophe. We can survive and have healthy and vibrant research for graduate students, UROPs," said

Canizares. "It could be devastating for individual faculty who might lose their awards, but it will not be a catastrophe for the institute overall given the recent growth in research from all sources."

In the best case, the federal budget would be capped at current levels, adjusted only for inflation.

According to MIT Facts, about 3,385 researchers work at the Institute during the academic year on projects funded by foundations, industry, and the government. Roughly 2,460 out of the possible 6,510 enrolled graduate students are appointed as research assistants.

"We know the government has pressure to come up with a compromise," Canizares said. "There is bipartisan recognition that research is important in longer term." He conceded, however that even a potential agreement would probably also reduce federal research funding. The best-case scenario would be research funding

capped at current rates, adjusted for inflation.

Due to uncertainty around the sequestration, faculty members should be careful, said Canizares. "We're being vigilant, not over-

extending. PIs who have federal funding should not make large commitments when the money might not be there." This includes being more cautious about hiring, or simply monitoring spending more closely.

The amount of federal funding across MIT's schools is uneven. Federal funds dominate 83 percent of the School of Science's budget, whereas they are 21 percent of the Sloan School of Management's. MIT currently receives its largest federal grants from the National Institutes for Health, the Department of Defense, and the Department of Energy: \$133.7 million,

\$117.5 million, and \$90.9 million in fiscal year 2012, respectively.

At the faculty meeting, Canizares outlined several scenarios the government could take. In the best case, the federal budget would be capped at current levels, adjusted only for inflation. In the worst case, the national defense budget would be kept constant, forcing the mandatory cuts to affect other agencies disproportionately. According to the Budget Control Act, there will be a sequester of \$400 billion in 2013, potentially totaling \$1.2 trillion by 2021 if no compromise is enacted. The sequestration is modeled after the Balanced Budget and Emergency Deficit Control Act of 1985, which mandated broad, sweeping cuts.

However, despite the threat of a reduction to MIT's research funds, Canizares said that "nothing is really known" about the how the cuts would be applied. It is unclear which programs would specifically suffer. For example, the sequestration could affect anticipated grant awards. According to slides from

the faculty meeting, deans should leave extra funding for hardship cases in case any grants or awards are not honored.

However, increased industry funding is not a panacea.

In addition, MIT is trying to diversify the sources of its research funding, namely, with funds from industry and individual donors — in 2011, \$100.8 million came from industry collaboration, according to MIT facts.

However, increased industry funding is not a panacea. Canizares said, "Industry doesn't tend to fund basic research," referring to research that does not necessarily translate into short-term profits because it may involve more theoretical work. Overall, Canizares urges the Institute be "reasonably prudent" in moving forward in light of the potential fiscal cliff.

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ACTUALLY...

SMBC, from Page 13

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THE SECRET LIVES OF RESEARCHERS

Endless forms most irregular

Measuring plankton volume causes computational headache

By Emily A. Moberg

In the viscous, tiny world of plankton, there is endless, beautiful variation.

There are tiny organisms that look like panes of stained glass. There are phytoplankton that can swim. There are phytoplankton that can form groups and those who choose to abandon them. These organisms are living in a very different world; for us it would feel like swimming in molasses. And despite the fact that they are almost invisible to the naked eye, they come in a dazzling array of colors and shapes, from spheres, to crosses, to stars, to footballs and many more.

Unfortunately for me, this dazzling array of shapes makes it hard to calculate certain properties — namely volume — from microscopic images. I was working with Heidi Sosik '87 on a project at the Woods Hole Oceanographic Institution to understand how carbon and chlorophyll are regulated in coastal phytoplankton. But to calculate carbon, we needed volume. For simple shapes like spheres, volume is easy — just revert to the techniques from calculus and rotate the boundary. For shapes like stars, it ended up being maddeningly difficult.

We had hundreds of millions of pictures

of different tiny photosynthetic marine organisms that we wanted to get volume from, which meant that doing anything by hand was prohibitively time-consuming. You can break the shape into pieces and do these calculations for each piece, but being even a couple of pixels off on the intersection can result in huge errors. And teaching a computer to break shapes ever so perfectly was proving very computationally slow.

Unfortunately for me, this dazzling array of shapes makes it hard to calculate certain properties — namely volume.

We could get the computer to automatically recognize what geometrical shapes parts of an image were closest to, like microscopists do when they say the alga *Ceratium* is a sphere with three cylinders tacked on. But again, this was really slow. I had read paper after paper that addressed other volume calculation issues, for automatic

image recognition in cars, to medical journals looking for centerlines to guide surgical procedures. Nothing was improving the efficacy of my volume calculations.

But then, the eureka moment that defines the life of every scientist! Or, actually, an idea that snuck into my head one day while I wasn't paying attention. I like to think of it as attacking the problem from an entirely different direction. Instead of thinking about rotation about a local axis (for example, around an "arm") I realized I could get data about the whole image and use geometrical rules to extrapolate overall volume. I would treat my plankton as a step pyramid with heights defined by their distances from the edge. If you have a rectangle, this would look like a jagged diamond in the cross-section with pinched edges near the short end of the rectangle. Diamonds can be easily related to circles by a multiplication factor and voila, we have a simple way to calculate volume! It would be three lines of code (more or less). It would be elegant and efficient.

Of course, it took me another month (and several notebooks of meticulous drawings of step-pyramids, test shapes, and calculations; I am sure my middle-school geometry teacher would have been so proud)

to iron out all the details — like smoothing those steps into a line — and show that my technique worked. But once I stepped outside my mental bubble and explored new options, the rest seemed easy.

But once I stepped outside my mental bubble and explored new options, the rest seemed easy.

Overall, my insight changed how I perceive the research process. That defining "eureka" moment was not at all how I had imagined; I didn't know at first if my crazy new method would work. The critical part was trying out my new idea and not giving up on it. Now, I try to give myself the flexibility to follow new ideas, no matter how strange they may first appear.

This is a new column and a space for students and researchers to share their exploits, experiences, and knowledge. If you are interested in contributing, please contact Emily Moberg at emoberg@mit.edu and cccl@tech.mit.edu.



Andrew Howard
Space Exploration Technologies

2012-2013

Dertouzos Lecture Series

Date: Thursday, November 15, 2012

Venue: MIT Stata Center, Building 32-123/Kirsch Auditorium

Time: 4:00PM (refreshments at 3:45PM)

Enter the Dragon: The SpaceX COTS Missions

Abstract: In May 2012, a SpaceX Dragon spacecraft berthed with the International Space Station, thus completing the second of two demonstration missions for NASA and opening the door to regular commercial resupply services to the ISS. In this talk, I will describe the COTS demonstration missions and the technologies that made them possible, including the Falcon 9 launcher, Dragon spacecraft and DragonEye proximity navigation system. Equally important, I will discuss some of the organizational, cultural and contractual changes that are allowing companies like SpaceX to deliver -- at a radically reduced cost -- services that have previously been the exclusive preserve of national governments.

Dr. Howard is Senior Guidance, Navigation and Control Engineer at Space Exploration Technologies and designer of the DragonEye proximity navigation system. Previously, he was a Senior Member of Technical Staff at the Jet Propulsion Laboratory, where he worked on vision-based navigation for a wide variety of projects, including Boston Dynamics' BigDog and the DARPA Crusher UGCV. Prior to joining JPL, Dr. Howard was a Research Assistant Professor at the University of Southern California Robotics Research Laboratory. Dr. Howard is a graduate of the University of Melbourne, with a degree in theoretical physics and PhD in computer science.

Host: Daniela Rus, CSAIL

For more information: www.csail.mit.edu or 617.253.0145



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```
import new_skills
```

```
def learnMarketableJobSkills():
    return linux, OSX, javascript, applescript, perl, python
```

```
if you.interest == True:
    print "E-mail join@tech.mit.edu"
```

----:----F1 joinTechno.py

(Python)--L1--Top-----

Men's basketball team falls to Harvard, 69-54

Even without Hollingsworth and Karraker, Engineers able to hold Crimson at bay

By Shri Ganeshram
SPORTS STAFF

On Friday, MIT's Men's Basketball team played at cross-town academic rival Harvard's court in a close 69-54 game. Fortunately, this loss will not taint the Engineers' Division III record, as

Division III season has not yet started.

Though the Engineers were not victorious on the scoreboard, their performance merited a victory in some senses of the word — being a Division III team but still keeping a Division I Ivy League powerhouse like Harvard on its toes is no easy accomplishment. What's even more impressive is that MIT didn't bring all of its firepower, leaving behind

Noel Hollingsworth '13 and Jamie Karraker '12. The Engineers had trouble finding easy baskets and Hollingsworth and Karraker are great at doing just that. All-American Hollingsworth's indefensible hook shot would have helped

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remedy MIT of Harvard's tough and large defense in the paint, and lights-out shooter Karraker's ability to put down threes, holding the Institute record for sheer quantity, would have opened up easy conversions on the outside

that the Engineers needed.

After some sloppy ball-handling on both sides of the floor, MIT set off to a fiery start, leading Harvard 10-0 thanks to two threes by Mitchell Kates '13 and James Burke '13.

Harvard quickly rebutted refusing MIT points with a rock solid defense and a quick offense leading to a 20-2 run to put Harvard ahead 20-12. Kates finally broke the run with a three and the two teams exchanged shots for the rest of the half, leading to a score of 31-26 in Harvard's favor.

The second half started unfortunately for MIT — a trio of jumpers left MIT behind, 37-26, and MIT was never able to fully recoup from the run. Still, the Engineers put up a valiant effort, holding Harvard to only 69 points and the difference to only 15.

Kates performed stunningly

throughout the game, leaving even the Harvard commentators in awe for his sheer talent. Kates, who played the first 39 minutes of the game with no rest, put up 20 points for the Engineers, as well

The Engineers have earned the number one spot in the preseason Division III rankings.

as three assists and three steals. Burke, who last played for MIT as a freshman and is now rejoining the team as a senior, clocked 39 minutes as well, and fan-favorite forward William Tashman '13 put in an equally impressive 38 minutes. Tashman also made his presence loud and clear, taking 15 points and a whopping nine

rebounds over a taller, more athletic Harvard team.

MIT's Men's Basketball can look forward to one of its best seasons this year. With a team more talented and more experienced than last year's, the Engineers have earned the number one spot in the preseason Division III rankings. Looking at the Engineers' performance this last year, a 29-2 season record and a trip to the final four, it's very likely that they take home the championship this year, and it's even possible that they do so going undefeated this season.

The men's basketball team will next play at Lesley University on Thursday, Nov. 15 to open their Division III season. Their first home game will be against Emmanuel College at 8 p.m. on Tuesday, Nov. 20 in Rockwell Cage.

Women's Soccer heads to third round of NCAAs

Kuo's goal in second overtime leads team past the College of New Jersey on Sunday

By Charlotte Brackett
DAPER STAFF

MIT Women's Soccer, ranked seventh in New England, topped the College of New Jersey 1-0 in double overtime in a high-paced NCAA Championship second round match on Sunday afternoon

at Haverford College. Senior Emily Kuo scored the game-winning goal in the first minute of the second overtime period, heading the ball in after a cross from freshman Priyanka Gaur. The Engineers advanced to the third round of the

tournament that will take place next weekend.

It was an aggressive game right from the very beginning. The ball spent a lot of the first half deep in MIT territory but the Engineers' defense were able to thwart all attacks. Five minutes in, TCNJ's Katie Lindacher shot from inside the box but was blocked by Kaitlyn L. Nealon '14, who slid in front of the ball and kicked it out of play. A few minutes later, a shot went past diving keeper Meghan S. Wright '13 but hit the right post and was booted out of the danger zone by Samantha A. Fleischmann '14.

In the 20th minute, TCNJ took advantage of an open net but ju-

nior Faith O'Brien punted the ball out of the goal to prevent a would-be goal. Morgan K. Moroi '15 had two impressive saves within 10 minutes of each other. At the end

With four minutes left on the clock, Kuo headed the ball into the net, ending the game.

of the first half, the Lions outshot the Engineers, 15-5. All MIT shots had to be saved by goalie Kendra Griffith, while only four TCNJ attempts were saved by Wright.

With a score of 0-0 going into the second period, the Cardinal and Gray continued to fight. In the first 10 minutes, Wright made two vital saves just eight seconds apart. Twenty seconds later, the Lions had two of their best chances at a goal when the first shot narrowly went to the left of the near post in the 56th minute and then another hit the crossbar just above a leaping Wright. With 13 minutes remaining in the game, the ball was almost knocked into the opposing net after deflecting off a TCNJ player but it was eventually saved. With one second remaining in the half, O'Brien shot from 20 yards out but hit the

left post, sending the game into overtime.

In the second 10-minute overtime period, Lindacher shot just past the left post, narrowly missing the net. With four minutes left on the clock, Kuo headed the ball into the net, ending the game.

It was an aggressive game right from the very beginning.

The College of New Jersey outshot MIT, 31-11. Griffith made seven saves, while Wright had 13.

Susie: Hey Ethan!

Ethan: What's up?

Susie: I'm looking for a job on campus. Do you have any ideas? I like programming and computers.

Ethan: You should join the technology department at The Tech! We pay \$14/hr.

Ethan: You get to learn valuable job skills too!

Susie: Cool, but what if I don't know that much yet?

Ethan: We've got people who can help you out.

Ethan: E-mail join@tech.mit.edu and we'll send you more info!



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