January 2004

ON TARGET

THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY • A DEPARTMENT OF ENERGY FACILITY

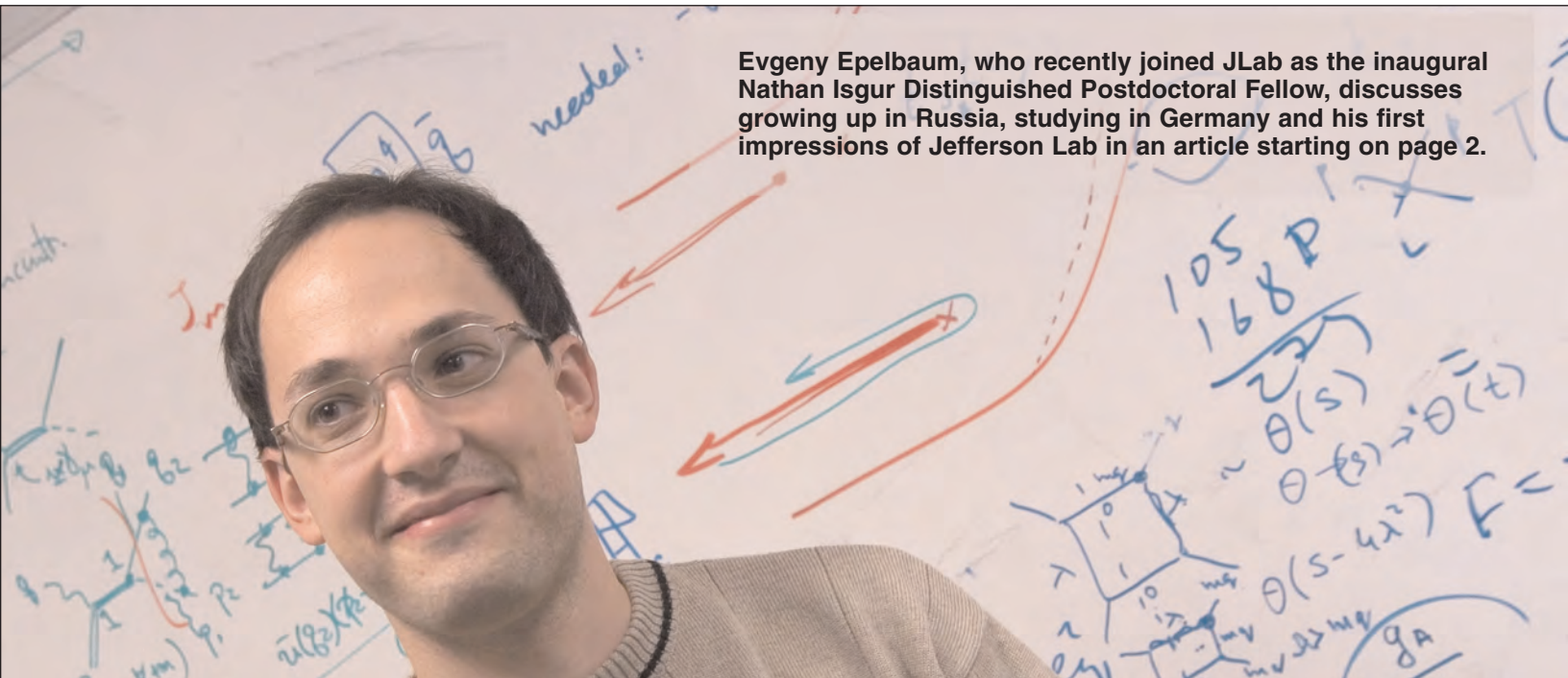
JLab welcomes Evgeny Epelbaum, inaugural Nathan Isgur Distinguished Postdoctoral Fellow

Jefferson Lab and the Southeastern Universities Research Association (SURA) established the Nathan Isgur Distinguished Postdoctoral Fellowship as a memorial to the late Nathan Isgur, who served as head of the Lab's Theory Group and as Chief Scientist until his death in July 2001.

The fellowship is intended to further the career of a young person displaying extraordinary scientific ability, allowing the recipient to pursue independent research in theoretical or experimental physics at Jefferson Lab for a period of three years with a possible two-year extension.

Applications were invited in March 2002, and review of applications began that September. John Domingo, Associate Director Emeritus of the Physics Division, says there were dozens of applications from all over the world. The local selection committee — Dennis Skopik, Deputy Director of the Physics Division; Bernhard Mecking, Senior Fellow; Rocco Schiavilla, then Interim Theory Group Leader, and Domingo — narrowed the field to 16 candidates.

After informal interviews with the applicants, the committee short-listed two experimentalists and the Theory Group selected two theoreticians. Each of these four candidates gave public lectures at the Lab in November and December 2002. Videotapes of the presentations and copies of transparencies were sent to the external committee — Don Geesaman, Argonne National Laboratory; Steve Wallace, University of Maryland and William Donnelly, Massachusetts Institute of Technology. The external and internal committee members then held a teleconference to make their selection. "The decision to select Evgeny Epelbaum was unanimous," says Domingo.



Evgeny Epelbaum, who recently joined JLab as the inaugural Nathan Isgur Distinguished Postdoctoral Fellow, discusses growing up in Russia, studying in Germany and his first impressions of Jefferson Lab in an article starting on page 2.

In their own words

with theoretical physicist Evgeny Epelbaum

as told to Melanie O'Byrne

I was born in St. Petersburg, Russia — at that time, Leningrad — and grew up in Gatchina, a small town near St. Petersburg. Gatchina is familiar to many physicists through the Petersburg Nuclear Physics Institute (PNPI) situated there.

When I was 19 my family and I immigrated to Germany, where I lived for about 10 years before coming to the United States.

I became interested in science relatively early, during my first school years. I think my interest in science was mainly due to my parents, especially my father. He spent a lot of time with my older brother and me, reading books and telling us about physics, mathematics, literature and history. He often encouraged us to think about interesting problems and puzzles in mathematics and physics. I really enjoyed the time we spent together.

During school, my favorite discipline was chemistry, rather than physics and mathematics. A friend and I liked to make small chemical experiments and had even a lot of different chemicals at home!

My interest in natural sciences was further influenced by participation in various school and student Olympiads. In Russia, students start competing in Olympiads early, but it really begins to get serious in the last three years of school.

I began to study physics at St. Petersburg State Polytechnic University. After we moved to Germany, I continued to study at Ruhr-Universität Bochum (RUB) and obtained my Master's of Science in 1997. I was fortunate to take my diploma under the supervision of Walter Glöckle, leader of the theoretical nuclear physics research group at the RUB.

For postgraduate study I moved to Forschungszentrum Jülich (FZ Jülich or Research Center Juelich), where I worked under the supervision of Ulf-G. Meißner, director of the Institute for Nuclear Physics Theory (IKP) at FZ Jülich, and Walter Glöckle. It was — and still is — a great pleasure to collaborate with these excellent physicists.

I received my Ph.D. from RUB in 2000. In my thesis, "The Nucleon-Nucleon Interaction from a Chiral Effective Field Theory," I concentrated on the description of nuclear forces within the framework of chiral effective field theory, among other subjects, and performed applications to the two-nucleon system.

After completing my Ph.D. I moved back to RUB and again joined Glöckle's group. I worked with collaborators from Germany, Poland and Japan on extensions of my previous research to systems with three and four nucleons. I also considered higher-order corrections to the nuclear force and its quark mass dependence. The latter might be important for upcoming quantum chromodynamics (QCD) lattice gauge theory calculations.

Last year I spent three months at the Institut de Physique Nucléaire, Université de Paris-Sud in Orsay, France, by invitation from Jan Stern. There I delivered lectures on various topics related to my research.

I am very happy about my selection for the position of Nathan Isgur Distinguished Postdoctoral Fellow. It is a big honor for me to receive this Fellowship associated with Nathan Isgur's name. Unfortunately, I did not have the pleasure of knowing Nathan Isgur personally. However, as a Ph.D. student I attended the Baryons '98 Conference in Bonn, Germany, where he delivered an introductory and overview lecture.

I arrived at Jefferson Lab on October 1 and am going to stay for three years. I am very grateful to Rocco Schiavilla [JLab's former Interim Theory Group Leader], who drew my attention to the Isgur Fellowship when we met last year at the Conference on Electron-Nucleus Scattering in Italy.

During the interview process [for the Fellowship] in November 2002, I gave a presentation designed to reach a broad audience including experimental physicists and researchers from different fields of physics. Basically, I wanted to give an introduction to the subject of my research — application of

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From the Director

Christoph Leemann
Jefferson Lab Director

We all play a role in supporting our user community

Dear Colleagues:

This month I want to highlight the role of Jefferson Lab as a user facility and the contributions of our users. JLab was built and is operated to provide forefront and unique capabilities for the exploration of the quark structure of matter, but only through the collaboration and cooperation of Lab staff and users can we fulfill this mission. Many of you work daily with users, but others do not have that personal contact. Since our users are nearing completion of the 100th experiment at JLab, I would like to focus attention on them, and the role we play in providing support for the pursuit of science at Jefferson Lab.

While the Lab has an important role in screening proposals for experiments and in staging their eventual execution, it is the worldwide user community that creates the vital flow of ideas and directions for experiments. This user community is made up of nearly 2300 members, with about 1800 on approved experiments, and about 200 on site at any given time. Users hail from 184 institutions in 30 countries around the world and from 33 states nationwide. They primarily come from universities but also from other national labs, U.S. and foreign. In terms of their funding sources, about one third each is funded by the DOE Office of Science, the National Science Foundation, and foreign funding agencies. This diversity contributes greatly to making Jefferson Lab a dynamic and exciting environment for research and adds a great deal to our daily life at the Lab.

Competition for beam time here is intense, and is exacerbated by the fact that running time is funding limited. The three halls have a backlog of almost 4 to nearly 5 years of approved, highest quality experiments. Every day we can add to running — every percent we can add to our machine availability — helps to alleviate this pressure, and it behooves Lab management to scour the organization for efficiencies that would make such improvements possible.

Users who want to perform an experiment at Jefferson Lab face a stringent process. They must first submit a proposal to the Jefferson Lab Program Advisory Committee (PAC), a group of eminent (non-JLab) scientists, for peer review and then the Technical Advisory Committee to determine the technical and beam requirements and infrastructure needs of the experiment. The 25th PAC meeting ended Jan. 16, and only the most meritorious proposals found approval. Users are also subject to rigorous EH&S reviews to ensure the safe operation of the experiment and its related equipment, and it is deeply rewarding for me that their safety record is exemplary. It takes years for a collaboration to propose, design and mount an experiment, then at least another year to analyze the data and publish the results.

Users' contributions often go significantly beyond proposing and running experiments. Many collaborations, and particularly foreign users, have made significant contributions worth tens of millions of dollars in the form of equipment in the halls. Beyond that, users were instrumental in developing the science motivation for the 12 GeV Upgrade, and in presenting and championing the case of this vital JLab project in the scientific community and with science policy makers.

Let us not forget, there are also many personal aspects to the triumphs and setbacks of users at JLab. Over 160 Ph.D. degrees have been awarded on the basis of JLab experiments — with about as many currently in the works. For many investigators, career decisions such as granting of tenure, hinge on the successful completion of a JLab experiment. The health of our science depends on all our collaborators, including those from foreign countries who have so generously contributed. It is an ongoing and growing concern that many of these users face daunting hurdles in obtaining the visas necessary to come here. Our User and International Liaison Office takes care of the many needs of our users while they are here by providing training and badging, and helping with office space, equipment and lodging. The most central and essential support the Lab can provide, however, remains to run the machine and the end stations as flawlessly as possible.

Our user community and the research they do is our very reason for being here, and while it is our support and capabilities that make their work possible, it is their publications and experimental results that build the scientific reputation of this institution. The science results have yielded unprecedented coverage this year in such high-profile publications as *Discover Magazine*, *The New York Times*, the *CERN Courier*, the *Economist*, *Science*, and *Physics Today*. The enthusiasm and dedication of our users is critical to our past success and to our future as a forefront research facility and they deserve our continued enthusiastic support and appreciation.

David Richards, new interim Theory Group Leader

Late in 2003, Rocco Schiavilla stepped down as interim Theory Group Leader so he could return to his teaching responsibilities at Old Dominion University. JLab Physics Division Associate Director Larry Cardman announced that David Richards, Theory Group, would take on that key role, effective Dec. 1, 2003. Richards joined the Theory Group in 1999 as a joint appointee with Old Dominion University, and transferred to a full-time position with the Theory Group in 2001. His research is focused on JLab's Lattice QCD (quantum chromodynamics) program.

Jerry Conley DOE Site Office Chief Operating Officer retires

Jerry Conley, long-time member of Jefferson Lab's DOE Site Office, retired on January 2, 2004. He had been on the Department of Energy Site Office staff since August 1987, and over the years served as Deputy Site Office Manager, Acting Site Office Manager, Site Office Manager, and most currently as Chief Operating Officer.

He arrived here when the Lab was little more than a collection of construction trailers, building supplies and several large holes in the ground. Conley recalls the JLab dedication in 1996 with then DOE Secretary Hazel O'Leary in attendance as a particularly satisfying moment in his career. "It was the culmination of a lot of hard work by many talented people," he comments. "It was incredible to see the Lab come up out of the ground and become a full-fledged research facility. It gives a person tangible verification of the value of what they do — to see the results of their efforts."

Conley had been with DOE since July 1986; before that he spent 10 years with the Tennessee Valley Authority, and 10 years with Newport News Shipbuilding. "Everything I'd done previously prepared me in some way for being part of this project," Conley notes. "My previous experiences, what I'd learned from the shipyard and TVA were all put to use as we built the Lab."

Another aspect of the job that Conley found exciting and satisfying here was interacting with the diversity of people and professions brought together to build the Lab. "First you are working with a nuclear physicist, then an attorney, an accountant, an engineer, and a computer specialist — all before the day is out," he says. "You don't know the project details that they are working, but you are carrying ideas between all these different specialties ensuring that the important messages are being communicated. It was very fulfilling work."

Conley has no specific job plans for retirement at this point. He will continue living in the area and he plans to travel and visit family. He enjoys ballroom dancing — a hobby he took up several years ago — and he plans to continue that.

"As you come to a new phase in life, part of you looks forward to it and part of you is apprehensive," Conley reflects. "One never knows the best time to make these changes. I've been introspective; I want to get the most out of this time in my life. There are new things I'd like to try and I want to do them while I still can."

"It has been wonderful working here with the great people in the Site Office and the great people that make up JLab," he adds. "Everyone who comes here is impressed with the motivation and professionalism they see. It makes me feel good to have been a part of it."

Staff Services

Handling the logistics behind JLab meetings, conferences, special events

by Judi Tull

It may look like just coffee and donuts to you, but there's a mountain of hard work behind every successful event — brought to you by the JLab Staff Services team. From laptops and projectors to clean sheets, coffee breaks and banquets, says Staff Services Manager Marty Hightower, "We sweat the small stuff so our customers don't have to."

Staff Services has four major areas of responsibility: food services; conferences, meetings and special events; the SURA Residence Facility; and the CEBAF Center reception desk. "We cover all the basic needs," Hightower explains. "Food, shelter, logistics." The concept is simple: Well-fed, well-rested, well-equipped people think better, work better and accomplish more. "Scientists are passionate about their work," she says, "and we are just as passionate about ours."

The Staff Services crew is a diverse group, bringing more than 30 years of experience in planning conferences, special events and meetings, and another 30 years in the hotel business, to their work at Jefferson Lab. Their backgrounds and skills run the gamut. Collectively, they are a chef, a caterer, a meeting planner, a small business owner, a creative writer, an MBA, an accountant, a market researcher, a journalist, a special events coordinator, a graphic artist, a musician, an actress and a professional clown.

"For the most part, we're all cross-trained, so we can be interchangeable," Hightower says. "We operate with complete and open communication, so that each of us always knows what the others are working on. That means that the customer can plug into the team at any point and get all of our skills."

Staff Services oversees the Lab's contract with Eurest Dining Service, which runs Quark Cafe and provides catering services. Last January, Staff Services sponsored a name-the-cafe contest, sifting through nearly 600 entries before the finalists were voted on. Working closely with the cafe manager, they also created the cafe's quirky, retro look, from neon sign to chrome accents.

As primary first-contact point for the Lab, the CEBAF Center reception desk handles hundreds of visitors and thousands of calls a year. "Pearl [Carstens] represents the Lab for visitors," says Hightower. "She's the first voice they hear and the first face they

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The Staff Services team — in character — surrounds their team manager, Marty Hightower, for this group photo. Clockwise from lower left: Rose Durham, Residence Facility team coordinator; Melissa Hicks, Res. Facility front desk clerk; Kay Hartman, Res. Facility head housekeeper; Ruth Bizot, staff administrator; Noel Vermeire, staff administrator; Pearl Carstens, Staff Services secretary/main reception desk; Christina Robinson, student intern, and last but not least, Cynthia Lockwood, staff administrator.

In their own words

With Dawn Manning, Science Education group

as told to Judi Tull

Although I was born in Florida and lived with my family in Madrid, Spain, when I was very small, I consider Austin, Texas, my home. That's where I went through all my schooling until high school graduation. In 1996, my parents were headed to China for their work with Motorola International, and I decided to move to Virginia with my older sister and her family.

I graduated from Christopher Newport University with a business degree in marketing and went to work for a large local corporation. I soon realized that the "hard sell" aspect of the business world wasn't very appealing to me. So I went back to school for my teaching certificate. I was already a substitute teacher and tutor at Huntington Middle School, and they hired me full time as a sixth-grade teacher.

I loved it. In that grade, the kids are 11, just turning 12, and it's when they're really discovering themselves. It's a very influential time in their lives, and I wanted to be a part of that.

In the spring of 2002, Jan Tyler, Science Education program manager, was the science fair judge in my classroom, and she asked if I'd be interested in a summer position at the Lab. I jumped at the chance. I was the liaison for the High School Summer Honors program. I set up the orientation and training, met with the students once a week to discuss the program and went over their weekly reports with them. The culminating event is always the poster presentation session, based on their projects, and I was in charge of that for the high school students as well as the college undergrads who were in the 10-week Science Undergraduate Laboratory Internship program.

At the end of that summer, I had accepted a teaching job with York County schools but before I ever got a chance to set foot in one of their classrooms a full-time position opened in the Science Education group. I interviewed, and was offered the job. I couldn't turn it down. As much as I love being in the classroom, jobs at Jefferson Lab are hard to come by and I couldn't pass up this wonderful opportunity!

During the school year, I'm a teacher for BEAMS, the Becoming Enthusiastic About Math and Science program. As a Science Education specialist, I work mostly with sixth graders, but also some seventh and eighth graders at the end of the year. The students come from Huntington, Reservoir and Dozier Middle Schools.

The other thing I do is recruit volunteers at the Lab to come in to the BEAMS classrooms to conduct hands-on math and science activities that correspond with the science being done at JLab. Some people here aren't familiar with the Science Education group and what we do, and part of my job is to make the Lab community more aware of the programs we run and how they can participate in them. Senior management encourages people to get involved in education and community outreach.

I also work with CHROME, the Cooperating Hampton Roads Organizations for Minorities in Engineering, Inc., an organization that encourages minority students to learn about and pursue high-tech careers. It's an after school club designed to nurture students' interests in math, science and technology, and has more than 100 clubs at area public schools.

I'm particularly excited about a newly funded Department of Energy program. It's called the Pre-Service Teacher Internship Program, or PST, and it will expose college students, who plan on teaching math or science, to the science being conducted at Jefferson Lab. They will work with scientists and engineers on projects related to the Lab's scientific mission. It's a rigorous 10-week program, and they will work under the guidance of a Master Teacher.

In my free time, I like to work on

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Science Bowl 2004

JLab needs your help to conduct academic event

On Saturday, Feb. 7, teams from 24 regional high schools will converge on Jefferson Lab for the 2004 Virginia Regional Science Bowl. "It is a hallmark event, championing interest in science and math across the nation," says Jan Tyler, Science Education program manager. "We have a record number of teams participating in this year's event."

"That means we'll need more volunteers this year than we've had in the past," she continued. "So, if you had a good time participating in the 2002 or 2003 Science Bowls, tell a co-worker, spouse or friend about this great event and bring them along for our upcoming training and practice sessions. If you were part of a room team that really 'clicked' last year, and you want to work with the same people this year, we'll do as much as possible to make that happen."

"We are looking for new volunteers as well as people with previous experience." Tyler added. "There are plenty of duties to go around."

More than 70 volunteers are needed to run the day-long academic competition. On Feb. 7, portions of the Lab will be taken over by more than 200 high school students, their coaches and the scores of volunteers needed to conduct the tournament. The morning will consist of a round-robin tournament, followed by double-elimination rounds in the afternoon.

"By 5 p.m. we'll be down to one team," Tyler explains. "The top three teams will earn cash prizes for their respective schools; and the top team wins a trip to the Science Bowl Nationals held in Washington, D.C., April 29–May 3."

"We're excited to be hosting this event," comments Tyler. "The 2002 and 2003 tournaments were great successes, and the Virginia Regional Science Bowl winner, Thomas Jefferson High School for Science and Technology from Alexandria, Va., has gone on to finish first at the nationals for the past two years. It is a fast-paced day full of excitement, intensity, and fun."

"This event is a great way to promote education, academic excellence and an interest in math and science," Tyler points out. "Competing with their peers is a great confidence builder and a fantastic way to motivate young minds."

The Science Bowl is an academic competition among teams of high school students who answer multiple-choice and short-answer questions on a variety of scientific topics (chemistry, biology, physics, mathematics, astronomy, and the general, earth and computer sciences). Each team is made up of five students, and a teacher who serves as advisor and coach. Science Bowl competitions have been endorsed by the Department of Energy since 1991.

Most of the volunteers are needed to perform as moderators, rules judges, timekeepers and scorekeepers during the morning, round-robin sessions, according to Tyler. She'll also need a small number of volunteers to be the on-site scientific team, that is called when a student challenges a question or answer during the competition, and a few individuals to help with administrative tasks and assist with the alternative afternoon activities planned for the teams that fall out of the competition during the morning session.

The moderators, rules judges, timekeepers and scorekeepers each have specific roles during the competition. Detailed descriptions of each position's responsibilities have been posted on the Science Education web page at http://education.jlab.org/sciencebowl/.

All participants, including volunteers, will receive a "Zoom into Science" T-shirt. Volunteer shifts will run from 8:30 a.m.–1 p.m. and from 1:30–5 p.m. with more people needed for the morning shift. Lab employees, contractors, users, and family members age 13 and older may volunteer.

"This is strictly a volunteer activity," Tyler reminds potential helpers. Anyone interested in more information or in volunteering may contact Tyler, e-mail tyler@jlab.org or call ext. 7164.

Science Bowl Volunteer Training Sessions

Monday, Jan. 26: 9 a.m.

Monday, Jan. 26: 3 p.m.

Monday, Feb. 2: 10:30 a.m.

All to be held in VARC classrooms 72 A & B

Practice Sessions

will be held on Feb. 4 and Feb. 5

In their own words

With SURA/JLab Graduate Fellow Peter Monaghan

as told to Judi Tull

I come from Northern Ireland, a small town called Holywood (yes, it's pronounced like your Hollywood) in County Down, not far from Belfast. Holywood is similar to one of your suburbs — not really rural — but a town in its own right. Growing up there, I was fortunate enough or maybe just sheltered enough, not to experience any of the "troubles" that Americans hear so much about in the media.

I am the youngest of five children; I have a sister and three brothers. I went to both Primary and Secondary school (the equivalent of U.S. high school) in Holywood — just a short walk from home. Those going on to university spend an extra two years taking what are called A-level classes. That's where I prepared for my undergraduate work. At the end of the two-year program, we take A-level exams and our grades determine which university we will be accepted to.

My first choice for university was to go to Cambridge to study mechanical engineering, but they wouldn't take me because I had gotten a "B" in my physics A-level. Ironically, my second choice was to attend Edinburgh University to study physics and they duly accepted me. Looking back, it seems like a stroke of luck or perhaps a twist of fate that led me to what I really enjoy doing. My physics degree at Edinburgh allowed me to spend an extra year studying (taking more classes and working on additional research projects) and graduate with a Master's degree in physics. In my last three years at Edinburgh, I won the class medal for outstanding academics and in the final two years I won cash prizes for scholastic achievement. I graduated at the top of my class.

It was during my third year at Edinburgh that I decided to do a Ph.D. after graduating and so I began to look at coming to the United States. The application process for universities in the U.S. is a lot different from the process at home. We don't have GRE's at home, so it was a completely new experience for me. Thankfully, the effort paid off and I was fortunate enough to be accepted at MIT in Boston in the spring of 1999. I feel very lucky because I also received full funding, which made it possible for me to come to the U.S.

I spent my first two and a half years at MIT studying, taking classes, doing coursework and taking the general doctoral exams or qualifiers. Then I came to the Lab in February 2002 to begin my thesis research, which focuses on studying the internal small distance structure of 12C (carbon-12). The experiment will use the two high-resolution, magnetic spectrometers (HRS) already in Hall A, and a third, larger-acceptance spectrometer called BigBite to make a triple coincidence measurement: the outgoing electron and struck proton in the two HRS and a recoil proton or neutron in BigBite.

I have been involved with construction of the detectors for use in BigBite, and I'm really enjoying this opportunity to work on the practical side of the experiment. I will also work on the software tools for the experiment, which is scheduled to take place in 2004. Afterward, I'll analyze the data and I hope to finish my thesis by the end of 2005. Being able to work on this experiment from start to finish is one of the things that has made this experience particularly exciting. Many students only have the opportunity to come here to analyze data, but I'm able to enjoy a much broader spectrum of experience this way.

I'd been to the United States before on vacations in Florida, Ohio and Oregon, so coming here to study was not a total culture shock. Many things are much less expensive here than at home — food, CDs, electronics. I'm able to have a good life here even as a student. I loved living in Boston, with its great history and culture and nightlife. Living in Newport News has been interesting in its own way, especially since it's so spread out. Despite that, I managed to live my first year and a half here without a car, as I did in Boston. In September I moved to Hampton, unfortunately just the weekend before Hurricane Isabel

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In their own words with Peter Monaghan...

Continued from previous page

came through. I did not bother unpacking, but left before my neighborhood was evacuated and went to northern Virginia for three days. Luckily, everything was fine in my new place when I returned.

I've been lucky enough to make a lot of friends wherever I've been, many of them through sports, which is my main hobby. I enjoy playing soccer, badminton, cycling and running. In September I ran "The Army 10-miler" around Washington, D.C., which was my first longer distance road race.

In late September, I was in Edinburgh for my sister's wedding, then a few weeks later in Grenoble for a conference. In November I took an early Christmas holiday and went home to Ireland for a break. I've done so much traveling that the fall has been something of a whirlwind for me.

When I finish my Ph.D., I'd like to stay in physics, in research. In this area of physics I think all of the best opportunities are in the U.S. Unfortunately, there are no real opportunities for doing this kind of research back at home, although there are a few labs in mainland Europe. If the chance to continue my career in the U.S. arises then I'll certainly take it, but I'll just have to wait and see what happens.

In their own words with Evgeny Epelbaum...

Continued from page 2

effective field theory to various problems in nuclear physics — and try to convey to the audience that this is an interesting and important topic.

In my talk I included various subjects I worked on during and after finishing my Ph.D. thesis. I still work on some of these projects, such as application of the chiral nuclear forces to three-nucleon scattering. I was pleased to answer several questions from the audience after my talk. I considered it as a good indication and hope that at least some people enjoyed my lecture and learned something new.

This talk was my first visit to Jefferson Lab. I was — and continue to be — very impressed by the Lab. Its importance for the whole nuclear physics community cannot be underestimated. I enjoy the high level of scientific activity provided by the Lab. One has the unique opportunity to talk to many highly qualified staff and guest scientists, and to attend seminars and workshops.

I have several ideas and topics I would like to work on during my stay at Jefferson Lab. Among other projects, I am going to address the nature of the three-nucleon force from the point of view of chiral perturbation theory. I would also like to concentrate on electron scattering on light nuclei, which might be of interest for experimental research performed at Jefferson Lab.

In addition, I consider my stay here as an excellent opportunity to learn new things and to begin new collaborations.

I came to the United States with my wife, Elena, and our daughter, Valeria. Moving here is a big change for all of us. SURA and Jefferson Lab helped keep our relocation as smooth as possible. It was very impressive to see how well it was organized. I would like to thank all the people at Jefferson Lab who provided us with assistance during this time.

Elena would like to start working. In Germany she had just finished her [university] education and wants to find work, possibly in an area related to early childhood education.

Valeria is now two years old. In our opinion, the best way for her to get integrated and to learn English will be through attendance at a child-care facility, where she would have the opportunity to play and communicate with other children.

I like to read books, cook, listen to music and play badminton. I spend the majority of my free time with my family. I especially like to play with my daughter and to read her fairy stories and children's poems.

In step with Staff Services...

In fiscal year 2003, Staff Services served:

- **54,547 cafe customers**
- **10,153 overnight guests**
- **18,442 customers at 423 functions including 6 major conferences**

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see." During Hurricane Isabel, Staff Services took the lead in arranging hotel rooms for employees during the storm. The CEBAF Center desk was crucial in coordinating emergency preparedness communications prior to the hurricane, and remained on duty until the Lab shut down and the last person had left the building.

Last year, the Residence Facility broke 10,000 room nights for the first time ever. "That's our Rose [Durham]," Hightower says. "The guests love her." The past year also saw a complete refurbishment of the great room and upgrades to the guest rooms.

Hightower didn't set out to be a services manager. After a career in musical theater in New York and running a successful food business, she moved with her husband to Charlottesville where she was a chef and caterer. She also coordinated special events at the Center for Biological Timing at the University of Virginia. In 1995, she came to the Lab to run special events and catering. Two years later, she stepped into her current position.

Her theater experience, she says, was the perfect background for what she does now. "Only I'm no longer the actor, I'm the director — making sure all the props are in place when the curtain goes up. For me, special events and conferences are pure show biz."

Since most of the work that Hightower and her staff do is behind the scenes, many people think all they do is have fun. "If we're doing our job right, we make it look easy," Hightower acknowledges. But there's more to it than that, she says. It takes a lot of hard work and a lot of long hours — before, during and after an event. Planning for major conferences can begin two or even three years out, with budgets, hotel contracts and website development. As an event draws near, there are meeting room set-ups, catering guarantees and audio-visual needs to arrange, not to mention registrations, credit cards and name badges.

Staff Services are the ones on hand for every function, from early morning to late nights and weekends, making sure things run smoothly and solving on the spot any problems that arise.

Staff Services, formerly attached to Human Resources, now operates within the Business Services Department, reporting to Mark Waite. "But we work for everybody," Hightower says. "The whole Lab is our customer."

In their own words with Dawn Manning...

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my new home in Newport News. If I hadn't been a teacher, I'd have been an interior decorator. I have a yellow Labrador named Bailey, and often visit my sister and brother-in-law who now live in Cornelius, N.C. I've traveled to China and Singapore and even hiked the Great Wall — definitely one of the coolest things I've ever done. It was just amazing.

I really have the best of both worlds in my job. It's the perfect venue to merge my marketing and teaching skills. I love my job, and the people here are great.

2003 Children's Holiday Party held December 13

Left: Santa Claus meets the children.

Right: Nicholas Rall looks over the donated bicycles for the Toys-for-Tots program.

More photos at www.jlab.org/intralab/committees/jag/.

Milestones
for Nov. — Dec. 2003

Hello

Mostafa Keraachi, Project Planner, Directorate

Mark Paris, Post Doctoral Fellow, Physics Division

Goodbye

Douglas Kieper, Associate/ Coordinator, Physics Division

SURA/JLab wins minority business awards

The Southeastern Universities Research Association/Jefferson Lab was recently recognized with the Corporate Cup award for October 2003 by the Virginia Minority Supplier Development Council (VMSDC) at the council's Tidewater Regional general membership meeting. The Tidewater Regional office presents this award to a corporation or agency that has shown their continual commitment to minority business development. This is the third Corporate Cup award received by SURA/JLab over the last two years.

Additionally, SURA/JLab received the annual Public Sector Award for 2003 at the Virginia Minority Supplier Development Council's annual meeting on Dec. 9, 2003, which includes nonprofit and governmental agencies, for its demonstrated commitment to minority business development and program participation.

VMSDC is a private, non-profit business association that acts as a liaison between its membership, of both private and public organizations, and minority owned companies that are associated with the council. Its primary activities focus on the development of business relationships, allowing the corporations to diversify their list of suppliers while offering minority entrepreneurs the chance to grow their customer base. The council's membership includes over 900 minority business and nearly 200 corporations.

Danny Lloyd, JLab's Purchasing manager and Small Business Program manager is the newly elected vice chair for the Tidewater Region of the VMSDC.

Jefferson Lab announces 2004 Spring Science Series events

Jefferson Lab's Spring 2004 Science Series events begin Tuesday, February 24, with science writer Nigel Hey presenting **"Worlds Beyond the Matrix."** In his presentation, learn about the exploration of space and see images gathered by probes and telescopes. He will venture into topics ranging from "What do those huge canyons on Mars look like?" to "What is waiting for us on the surfaces of the other planets in our solar system?" He will discuss the technologies currently being used to explore the depths of space.

"The Physics of Stock Car Racing from a NASCAR Champion's Perspective," with Lawrence Livermore National Lab physicist and stock car driver, Scott Winters, is set for Tuesday, March 9. This two-time NASCAR Champion will overview the physics of stock car racing from a driver's perspective. Topics will feature various technical aspects of stock car racing, such as, tires, mechanical suspension, aerodynamics and engines with an emphasis on NASCAR-style cars. Catch this exhilarating, "fast paced" lecture, complete with video footage.

Then University of Washington's Scott Eberhardt, professor of Aeronautics and Astronautics, discusses **"Understanding Flight: A Physical Description of How Airplanes Fly"** on Tuesday, March 23. Have you ever wondered how a Boeing 747 can even get off the ground? Or how airplanes fly upside down? What makes a wing efficient? These questions can be answered when lift is developed in terms of Newton's laws. Through the application of Newton's three laws, the audience will gain insight into conclusions of aerodynamics without the need for analysis. Come to understand how and why the wing is able to carry such a large load.

The final event of the season will be Tuesday, April 6, and features William Hammack, of the University of Illinois and National Public Radio host of the "Engineering Guy" program, discussing **"The Hidden World of Technology."** From the moment the clock radio comes on in the morning to the time we shut off the last light at night, a hidden web of technology supports and sustains us. Hammack takes the first half hour of his day to show his audience the complex web of technology underlying it. In addition to the technical aspect, he explores the social, political, economic and cultural context of the material things surrounding us.

Science Series presentations begin at 7 p.m. in Jefferson Lab's CEBAF Center auditorium, located at 12000 Jefferson Ave., Newport News. The presentations last about one hour with a question and answer period at the end. The events are free and open to anyone interested in learning more about science. For security purposes during Science Series events, enter at Jefferson Lab's main entrance (Onnes Dr.). Everyone over 16 is asked to carry a photo ID and security guards may perform ID and vehicle checks. For more information, visit http://education.jlab.org/scienceseries/currentseries.html.

Winter weather is here

Where to get Jefferson Lab delay, closing information

Virginia's ever-changing winter weather is with us once again. Which leads to the question, "If the weather gets bad, how will I know if I should come to work?"

In the event of snow, sleet or freezing rain, you may turn to the media listed in the far-right column for JLab work cancellation or delay announcements.

If Jefferson Lab has a late start or is closed for the day, the Public Affairs office will inform the channels and stations listed. If there is to be a delayed opening or a closure, our goal is to get this information to the TV, radio, JLab web page and on the main Lab phone number (269-7100) prior to 6 a.m.

Jefferson Lab cannot control if the information is transmitted on the radio and TV stations. Also, television channels and radio stations will not announce that we are open. In the event of a late start or closure, the Telecommunications Group will place an announcement on voice mail at 269-7100. This number can respond to fourteen calls at once. If you get a busy signal, call again later.

If you have at home access to the Internet, the Lab's home page will announce a closure or delayed opening (http://www.jlab.org/).

If after checking the TV, radio, web and/or 269-7100, you are still uncertain about going to work, call your supervisor.

Listen to the following radio and TV stations for weather and traffic reports:

Television
WTKR (CBS)-Channel 3
WAVY (NBC)-Channel 10
WVEC (ABC)-Channel 13

Radio - AM
WNIS 790 AM
WTAR 850 AM
WCMS 1050 AM
WGH 1310 AM

Radio - FM
WHRV 89.5 FM
WXMM 100.5 FM
2WD 101.3 FM
WGH 97.3 FM

ON TARGET

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