



Illustrations: Sandbox Studio, Chicago

Physicist Jean Tran Thanh Van, creator of one of the most prestigious particle physics conferences, is the king of connections. His humanitarian efforts, combined with his vision of a cohesive international particle physics community, have now led him back to his home country of Vietnam.

Particle physicists separate each year into two parts: the months spent preparing for the summer conferences and the months spent preparing for the winter ones. For some physicists, however, the year splits at a single hinge. Everything happens either before or after the Rencontres de Moriond. Scientific collaborations around the world strive to unveil their latest breaking results at this one-of-a-kind annual event.

The architect of the Rencontres de Moriond is physicist Jean Tran Thanh Van. Born and raised in Vietnam, Tran overcame many obstacles—growing up in a country at war, losing his parents at a young age—to become a powerful force in uniting particle physicists divided by geography and politics. His success strengthening the community of particle physicists has helped him to promote development and scientific literacy in his home country of Vietnam.

Architectural rendering of the International Center for Interdisciplinary Science and Education

Credit: Rencontres du Vietnam



Recent photograph of the ICISE site in a fishing village at the edge of the East Sea

Credit: Greg Landsberg



ICISE groundbreaking ceremony in December 2011

Credit: Nicole Ribet



Van and Kim at the ceremony for the John Torrence Tate Award for International Leadership in Physics

Credit: Emmanuelle Tran



Tran at the Centre National de la Recherche Scientifique in Paris in 2012

Credit: CNRS



THE SPIRIT OF MORIOND

To make the pilgrimage to the Rencontres de Moriond is to understand the spirit of Moriond. Named after a French ski resort that hosted the conference in its first year, the Moriond conference nowadays takes place in La Thuile, an isolated town in the Italian Alps.

Each conference session, 150 or so attendees gather at Geneva airport to board the bus to La Thuile as strangers. The only buses back to the airport leave on the session's final day.

During the week in between, conference participants spend almost every waking hour together, sharing new physics results, ideas, coffee, ski lifts, sunscreen, hotel rooms and almost every single meal. The experience brings people together in a way unequaled at other conferences.

"By definition, people who come there are friends," says Valery Rubakov, a Russian scientist who began attending Moriond conferences during the days of the Soviet Union. "Even if people don't know each other, if you get to this meeting, you know how to behave."

Among the invited conference participants are some of the giants of the field. But, by Moriond tradition, the majority of the speakers are young, recently minted PhDs, most still pondering their next steps once their postdoctoral positions come to an end. Moderators enforce a strict 15-minute time limit on most talks, no matter the seniority of the speaker.

Experiments announce some of their most significant results at Moriond. Yet an eerie silence falls over attendees' email accounts, blogs and Twitter feeds. The hotel's only Wi-Fi signal pulses weakly in the noisy café-bar. Even there, many physicists prefer to chat in person over an espresso or a beer.

"At the beginning, you look around the conference room and it's obvious: Without Internet, people have no idea what to do," says Fermilab's Boaz Klima, whom Tran invited to co-organize Moriond almost 20 years ago. "The next day, you realize: People are relaxed. They actually listen."

An alluring panorama of mountains covered in fresh snow tempts attendees from the windows of the conference room. Nevertheless, it's difficult to find a seat. Scientists break in the afternoon for a few hours of skiing; the presentations resume in the evening.

But the physics talk doesn't stop on the slopes. Among their conference materials, each attendee receives a small notebook, "like the ones you use in primary school," says Jean-Marie Frere, who began attending Moriond conferences in the early 1980s and now also serves as a co-organizer. "Those notebooks were specifically chosen by Tran to be sure people could fold them in their ski jackets."

A GREAT DEAL ON A CHALET

According to long-time attendees, the father and guardian of the community spirit of Moriond is Tran.

Tran created the Rencontres de Moriond at the age of 29, almost by accident. In December 1965, he and his wife wanted to rent a house in a French village for about a week with a few friends. They discovered that in January, considered the off-season, they could rent the place for an entire month for the price of a week, what would now be about \$300.

"We come from a poor country," Tran says. "We didn't want to waste money. I had to think of what to do with the rest of the time."

Tran saw the opportunity to solve a problem. When he was working on his thesis, a theory paper about the structure of the neutron, an experimentalist at the same institution, Institut National de Physique Nucléaire et de Physique des Particules in Orsay, France, was working on the same problem. The two of them worked in parallel for months, neither knowing the other existed. There was a gap in communication; he was going to help bridge that gap.

Tran invited about 20 physicists, theorists and experimentalists, to spend a week at the chalet. They came from France, Germany, Italy and the United States. They shopped together in the morning and took care of the cooking and dish-washing during the day. They skied and listened to music. They talked physics.

They lived like a family, which made them open up to one another. They admitted to difficulties that they would never have highlighted in a regular conference talk. They found they had many experiences and struggles in common, and they found they could help one another. More than 40 years later, this way of relating to one another lives on in the spirit of Moriond.

The Tran family dressed in their ski clothes at a Rencontres de Moriond conference in the '70s

Credit: Nicole Ribet



Scientists gather for a family-style fondue dinner at Rencontres de Moriond conference at Méribel

Credit: Nicole Ribet



Scientists, including Tran [in blue], raise a toast to the 1995 discovery of the top quark by scientists at experiments at Fermilab's Tevatron particle accelerator

Credit: unknown



Physicist André Martin delivers a lecture outdoors on the hotel terrace at the 1969 Rencontres de Moriond in Verbier

Credit: Nicole Ribet



Audience members in a packed room listen to a conference talk at the 2012 Rencontres de Moriond conference

Credit: official Moriond photographer



Attendees of the 2012 Rencontres de Moriond conference talk over dinner

Credit: official Moriond photographer



Tran cuts the cake at the 40th anniversary of the Rencontres de Moriond

Credit: Boaz Klima



THE SPIRIT OF VIETNAM

Family is important in Vietnamese culture. If children in Vietnam lose their parents, often the older siblings step up to raise the younger ones. Tran lost his parents at the age of 11, and his wife lost her parents at the age of 1. Growing up on opposite halves of Vietnam, they forged new families out of what they had.

As a child, Tran did not consider Vietnam beautiful. Even though his village, Dong Hoi, was relatively peaceful, the fear of attack by guerilla soldiers prevented people from leaving it.

“At that time, life and death, the two things are very, very close,” Tran says. “You are in a state where you don’t know if tomorrow you will die or still live.”

But it was possible to fly. In 1953, at the age of 17, Tran escaped to France to evade the military conscription he would have faced his next birthday. His brother, Gian, who had come to France a few years before at the age of 35, helped him enroll in his final year of school. He took the baccalaureate test and entered college in Paris.

In France, Tran met his future wife, Kim, who had left Vietnam at 18 and become a successful biologist. The two would become a nearly unstoppable force, planning scientific conferences in tandem and, at the same time, finding ways to give back to Vietnam.

“It is important that people meet each other walking in the same direction,” Tran says. “I would not be able to do anything without the collaboration of my wife. That you can ask any physicist you meet.”

Tran's daughters, Emmanuelle and Anne-Claire, remember their parents constantly hosting newly arrived Vietnamese students at their home in Paris.

“We used to have Vietnam at home,” Emmanuelle says. “They came for a weekend; they came for a night. They wanted to eat Vietnamese food, so they would come stay at our place. We still have a lot of contact with these guys.”

The Tran family opened their home to more than just the Vietnamese community; they also welcomed a steady stream of physicists and biologists from around the world. They still do.

“When we go back and want to see our parents, there’s always someone there,” Anne-Claire says.

“It’s a fact of life,” Emmanuelle says.

GOING HOME & GIVING BACK

In 1970, the war in Vietnam had left many young Vietnamese children without parents. At that time, orphanages would divide children by age and gender, splitting siblings apart. Still in Paris, Tran and his wife decided to do something about this.

They worked with an Austrian organization, the International Federation of SOS Children's Villages, to set up homes for orphaned kids. Brothers and sisters would stay together, grouped into families of 10 children with a single caretaker in a village full of these makeshift families.

Tran and his wife founded an aid association, Aide a L'Enfance du Vietnam, to help raise funds. They stood in the cold outside churches and sold Christmas cards, each with a multilingual note requesting donations and sponsorships tucked inside. Over several years, they raised enough money to build a children's village in Dalat, to open a shelter and training center in Hué and, later, to open a children's village in Tran's hometown of Dong Hoi. Altogether, these developments house more than 300 children at a time.

In 1974, Tran and his wife returned to Vietnam for the first time in more than 20 years. "It was dark; there was no light at night around the Hoan Kiêm lake in the heart of Hanoi," Kim says. "Now there are sky scrapers everywhere. At that time, there was nothing."

But they have seen new developments on each return. In 1990, the Trans flew back to renovate the children's village in Dalat. In 1993, they held their first scientific conference in Asia, the Rencontres du Vietnam.

Over the years, Tran has invited many of the scientists whose lives he has touched to visit his childhood country. Top-tier physicists volunteer their time to teach in short-term schools for students from across Asia. They spend time with the orphans Tran and his wife have helped shelter. Physicists work with Tran to identify Vietnamese students to invite into high-level graduate programs abroad.

Undergraduate education in Vietnam is very strong, says physicist Greg Landsberg, who has traveled to the country with Tran nine times to recruit students to study at Brown University.

But they suffer from their lack of up-to-date textbooks. Tran helped Vietnamese postdoc Vu Anh Tuan get into university at the École Polytechnique in Paris in the late 1990s. Vu said that when he first left Vietnam, he did not know that quarks, once just a theory, actually had been discovered.

Tran still treats the students he helped like family, says Vu, who works on the ATLAS experiment at CERN laboratory near Geneva, Switzerland. "I talk to him every two or three weeks or so," he says. "We talk about Vietnam. We talk about my career. He's like a father."

Vu sells Christmas cards every year to raise money for Tran and his wife's orphanages.

Tran forms lasting allegiances. In 1966, his institution hired Nicole Ribet to help organize the Moriond conferences. It was her first job after graduating from the Sorbonne with a degree in literature. They are still friends. She says she first really understood Tran when she visited Vietnam 40 years after they first met.

"I was trying to cross one of these big avenues in Hanoi," which at the time were full of wild drivers on scooters, she says. "You advance; you go ahead slowly but in one direction. You have to carry on slowly, never stop, carry on, carry on, and get to the other side, exactly at the point which you have been aiming at all the time. And that's Van."

Palo Alto Times article with a photo of a young Tran and his wife

Credit: Palo Alto Times



Children from the SOS Children's Village in Thuy Xuân, Huế, Vietnam

Credit: Aide à l'Enfance du Vietnam



Children from the SOS Children's Village in Dong Hoi picnic on the beach

Credit: Aide à l'Enfance du Vietnam



Children pose with a caregiver in the SOS Children's Village in Dong Hoi

Credit: Aide à l'Enfance du Vietnam



Tran hugs kids from the SOS Children's Village in Dong Hoi

Credit: Aide à l'Enfance du Vietnam



Children in the SOS Children's Village in Thuy Xuân, Huế

Credit: Aide à l'Enfance du Vietnam



A BEACON OF SCIENCE IN A FISHING VILLAGE

This April, the American Institute of Physics awarded Tran the 2011 John Torrence Tate Award for International Leadership in Physics for a lifetime of tireless work. He is retired and in his 70s, but he continues to make new plans. He can't help it.

"When you live in a poor condition, you understand what is life," Tran says. "For me it is why life is not for myself, but is really for to build something good for the future."

This year, he hopes to start construction on an international, interdisciplinary center of scientific excellence in a fishing village at the edge of the East Sea near the Pleiku mountains, an area populated by elephants.

"It's an extremely beautiful site," Tran says.

A couple of years ago, the center sounded like an impossible dream, Klima says. But thanks to Tran's tireless advocating, he's now planning to start construction in May.

"He is a bulldozer," Klima says. "He doesn't take no for an answer. He pushes and pushes and pushes. It's fantastic."

About 200 people from 29 countries attended the groundbreaking for the International Center for Interdisciplinary Science and Education in Vietnam in December 2011. Tran plans to hold the center's inaugural conference in late July 2013.

He envisions the remote coastal village as a place scientists will be able to sequester themselves, in the spirit of Moriond, to talk and work together. With the help of his family, scientific and otherwise, he hopes to bring the scientific growth he has fostered elsewhere to the heart of Vietnam.