

Global Fellows Meeting:

# Strengthening the Network's Substrate



**SFI hosted its first** International Fellows Global Meeting September 15–19, 2006. Seventeen former International Fellows as well as international visitors who have participated in the SFI International Program returned to the Institute to share their latest research, develop new collaborations, and learn about initiatives in complexity science around the world. The far-flung community—coming from home institutions in the Former Soviet Union and Eastern Europe, China, India, and Latin America—assembled at the Star Hill Inn, a private astronomy retreat outside Santa Fe in the foothills of the Rocky Mountains.

Group rapporteur Carlos Rodriguez-Sickert, professor in the Sociology Institute at the Catholic University in Santiago, Chile, notes: “Compared to other seminars I have attended at SFI, the global meeting was particularly representative of SFI’s interdisciplinary approach to science. Previous seminars, although rich in alternative disciplinary perspectives, were always organized around some well-defined theme, such as robustness or inequality. In the global meeting, by contrast, topics ranged from birdsong to quantum computers. Instead of retreating to our own research agendas, we each made an extra effort to look for areas of common interest and eventual future collaboration.”

To this end, the fellows—representing a broad range of mathematical, physical, biological, and social sciences—each talked about their respective current research

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projects and how a complexity science approach has impacted their work. For example, Claudia Codeço, from the Scientific Computation Program at Fiocruz in Rio de Janeiro, explained her latest theoretical models for the dynamics of vector and water-borne infectious diseases—in particular, leptospirosis and cholera. Sociology professor Balazs Vedres, from the Central European University in Budapest, discussed his research into the relationship between business networks and political ties during Hungary's social transformation from 1987 to the present. SFI External Faculty member and former Senior Fellow Hao Bailin reported on some of his recent work that includes observations of real DNA and protein data leading to biology-inspired mathematics, including combinatorics, graph theory, and formal language theory.

"This was a group of motivated researchers who share a common view on how science should be done," says Rodriguez-Sickert. We're all strongly identified with SFI—and grateful—but also attached to our institutions in our countries of origin." This combination led to a group-level sense of responsibility, he noted, and a need to reciprocate the opportunity that had been given to them by developing local means in their home countries that could work as SFI's spores. Conversations among the ex-fellows were fruitful, he added, predicting an auspicious future for the proliferation process. "Many of us face a critical mass problem in our countries and the idea of an interconnected community of researchers/institutions is a very appealing opportunity to reconcile both our identification with SFI and our attachment to our local academic communities," he says.

Indeed, simply from a geographical perspective, the interconnections are broad and rich ranging from Bariloche to Siberia. "We hoped the meeting would be more than an exchange of scientific ideas—and we were not disappointed," says Shannon Larsen, director of SFI's International Program. The primary motivation for the meeting was to connect researchers across the world who may have common interests or who face similar issues in their home countries. Many of the former fellows have been working to develop complexity groups, institutes, or curricula, and face challenges working across departments and developing interdisciplinary teams.

In tandem with the seminars were several "semi-academic" events, as Rodriguez-Sickert characterizes them. "It was great fun to watch the stars with an astronomer at Star Hill, and have a guided visit to Pecos National Historic Park with such a generous expert as Tim Kohler," he says. "The collateral activities also gave us the opportunity to have extended discussions of our research agendas and, maybe more importantly, to analyze alternative paths which could guarantee the prolongation of the program beyond the terms of the international fellowships."

The international wine-tasting event was also a success with participants. They ranked 14 wines, ranging from what Rodriguez-Sickert termed a "noble" Shiraz that one of the Argentinean delegates brought, to a "provocative" New Mexican potion. "In any case, beyond rankings, the wine tasting was representative of the diversity and richness of the incipient network the meeting established," he says. "Indeed, the group-bonding experience that accompanied it strengthened the network's affective substrate." ◀