

Revenge of the Nerd

NEVER HEARD OF JUSTIN MODROO? THIS FREESKIER COULD SAVE YOUR LIFE.

LAST NOVEMBER, JUSTIN MODROO RESCUED Buford—a 145-pound Yorkshire pig—from the butcher block. Then he fed him a big pill, drove him to Loveland Ski Area, Colorado, and buried him beneath two feet of snow. Why? So Modroo, an engineering student and internationally ranked freeskiier, could beam radar in Buford's general direction for 110 hours. OK, but why? To someday save your bacon. While Buford played the role of a human—albeit a dead one—trapped in an avalanche, Modroo conducted an experiment that may help search-and-rescue personnel find buried victims faster.

While Modroo didn't know a sow from a sausage, he did know snow. The 26-year-old Colorado School of Mines grad student has skied competitively since elementary school. For the past two winters, whenever he could escape his windowless lab in Golden, Colorado, Modroo has logged 20,000 miles driving to comps—finishing second in the 2003 U.S. Extreme Freeskiing Championships in Crested Butte, Colorado, and sixth at the 2004 World Tour Finals in Kirkwood, California. "His technical skills are really tight," says 31-year-old Rick Greener, a consistent freeskiing podium finisher. "And he's one of the only guys on the tour still skiing on skinny skis. He does like ten turns for every two of ours."

And if his old-school descents don't wow the judges, he can always fall back on science. Modroo's research proved that geophysicists' ground penetrating radar (GPR)—commonly used for finding buried electrical wires—can locate bodies trapped under snow and ice. A single GPR antenna wired to an ordinary laptop computer distinguished Buford from pine boughs—and backpacks, logs, skis, helmets, and dirt clods. Consequently, Modroo believes that similar setups, hung from the skids of rescue helicopters, could help locate backcountry victims more quickly—and drastically cut the number of worldwide avalanche deaths (currently around 175 a year). His thesis on the topic earned him distinction as one of seven top young scientists at a GPR conference in the Netherlands last June, but the nerdy jock hasn't forgotten his pig pal: "Before the vet gave Buford the fatal shot, I fed him that big pill to transmit his core temperature," Modroo recalls. "That was his last meal. I should have fed him a carrot, too." —ERIC HANSEN



The 2004 World Extremes at Snowbird: What Justin Modroo does when he leaves the lab.

SMARTY PANTS

GENE POOL: One brother is an electrical engineer, the other is an architect. His mother is an English teacher, his father a geophysicist. "When we all get together at Christmas, we try not to be too nerdy," Modroo says. "But we'll be like, 'Here's what I'm working on!'"

HOW TO SCORE CHICKS AT A UNIVERSITY THAT'S

75 PERCENT MALE: "Girls and engineering? Quit joking."

HOW TO SCORE CHICKS IN A SKI TOWN: "Leave, go to the beach, and learn to surf."

FOR THE ATTENTION: "If it's hard snow, I'll put on a Fischer race ski. Then the announcers always say, 'Here comes Justin Modroo, the guy with the longest hair and the skinniest skis.'"