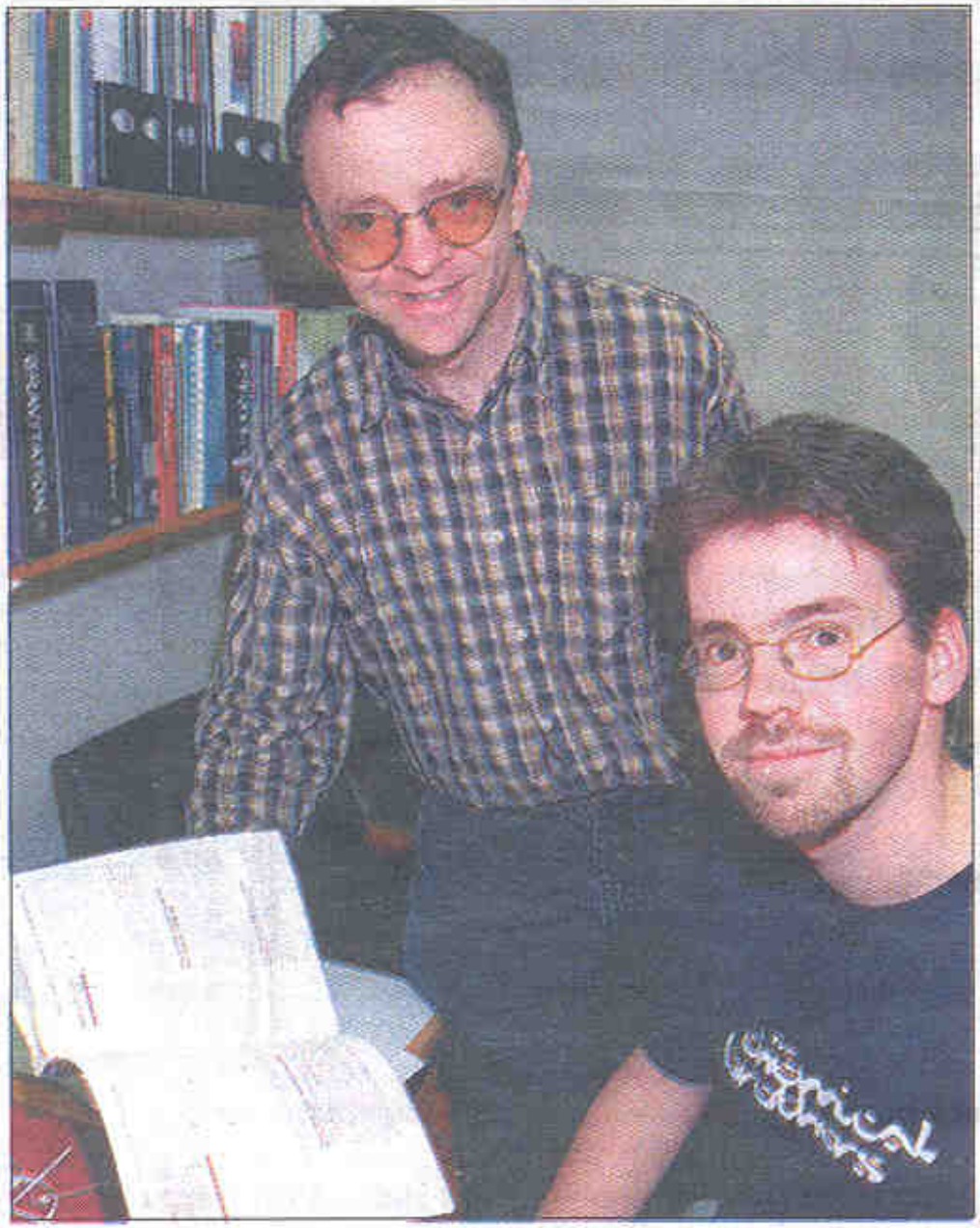
The Bangor and Anglesey Mail 4.oct.00

Scientists have had their chips with the Americans



MICRO chips taking computers to a new quantum frontier will soon be manufactured, thanks to a transatlantic venture between physicists and scientists in Wales and the United States.

Boffins at Bangor University have discovered a method of making micro-chips for super-fast computing beyond current technology.

They have been working closely with staff at the Jet Propulsion Laboratories in Pasadena, California.

The chips are enhanced using a laser light which etches the surface to reveal circuits at 400 times thinner than the width of a human hair, allowing faster computer signals to be processed.

Quantum physicists at Bangor have forged a theoretical way ahead for accelerating computer technology by using the unique properties of sub-atoms to leap ahead of current micro-chip technology.

Quantum physicist Dr Sam Braunstein of the university's school of informatics explained that smaller chips will improve computer speeds.

"Current high-speed computing relies on ever-smaller chips with tiny circuits made up of on-off switches or transistors.

"The decreasing size of these chips enables the current to pass through at greater speeds, improving the number crunching capabilities of our computer."

Dutch researcher Pieter Kok, who is studying the subject at Bangor, said more ground-breaking study into quantum mechanics is underway.

"It is very exciting to be working in this field.

"The theory has to be developed further," he said.

©Bangor and Anglesey Mail 2000