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Sam Goudsmit—His Physics and His Statesmanship

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Sam Goudsmit was already a famous theoretical physicist in his thirties, mainly because of his co-discovery of electron spin with George Uhlenbeck while both were students of Paul Ehrenfest in Holland in 1925. He and Uhlenbeck continued their thriving careers at the University of Michigan. Goudsmit's style as a physicist was always to make as close a connection between theory and experiment as possible. Thus, for example, his development with his student Robert Bacher of the technique called "fractional parentage" used fruitfully in both atomic and nuclear physics to compute energy levels of unknown states in terms of known ones. He also delved deeply into problems related to determinations of nuclear spins and moments. Partly because of his service as scientific leader of the Alsos project at the end of WWII he became a leading statesman of science. I will describe some of his achievements both as a physicist and as a statesman, prior to his becoming Editor in Chief of the American Physical Society.