François Morain graduated from École Polytechnique in 1986, and entered the Délégation Générale pour l'Armement (DGA). He received a PhD from University of Lyon I in 1990, and an HdR from Paris 6 in 1997.

He is Professor in Computer Science at École Polytechnique since 2007, after being Associate Professor in 2000-2007. He is engaged in teaching at undergraduate and graduate level, currently in charge of the course introduction to programming for freshmen (2000-2005 and again from 2011), and cryptology. He is vice-president of the CS Department of École Polytechnique.

He is also researcher at LIX (Lab. of Computer Science at École Polytechnique), currently as member of INRIA/GRACE team (Geometry, Arithmetic, Algorithms, Codes and Encryption). He was scientific leader of the INRIA-TANC team from 2003 to 2008 and went on sabbatical at the University of Waterloo (Ontario) during academic year 2008-2009.
He is a specialist of algorithmic number theory and cryptology. His interests embrace prime numbers, integer factorization, elliptic curves, and in more recent years discrete logarithms computations. He has written around 80 publications in academic journals or proceedings of conference, which have received more than 2700 citations.

He was bestowed Chevalier dans l'Ordre des Palmes Académiques in 2005.