The simplest model of an incompressible viscous fluid is the Navier-Stokes system. The real mathematical study started with Leray's 1933 paper about the existence of weak type solutions. Since then, it has been a major field for mathematical research because the smoothness of those solutions is still an open problem. I plan to recall the main results together with some new related problems.

For more information, contact Mike “Quimby” Krebs at mkrebs@calstatela.edu or Tony Shaheen at ashahee@calstatela.edu.

Math Club website: http://www.calstatela.edu/academic/math/Math_Club/mathClub.htm