The modulation instability of the one-dimensional cubic-quintic complex Ginzburg-Landau equation with fourth-order dispersion and gain terms, a.k.a., the quintic complex Swift-Hohenberg equation, is investigated. The effects of the fourth-order terms to the modulational instability is studied. We numerically investigate the dynamics of the modulational instability in the presence of the fourth-order dispersion and gain terms. – PACS numbers: 42.65.Tg, 42.81DP, 42.65Sf

Key words: Quintic Complex Swift-Hohenberg Equation; Modulation Instability; Optical Gain; Optical Solitary-wave; Numeric Simulation.