

A Test of Superradiance in an FEL Experiment*,
R. BONIFACIO**, R. BOYCE, R. CARR,
M. CORNACCHIA, R. HETTEL,
H.-D. NUHN, L. DE SALVO**, H. WIEDEMANN,
SLAC; S.-K. NAM, Kangwon National University,
Korea; W.M. FAWLEY, LBL;
E.T. SCHARLEMANN, LLNL; Y.C. HUANG,
Stanford University - We describe the design of an **FEL
Amplifier Test Experiment (FATE)** to demonstrate the
super radiant short bunch regime of the Free Electron
Laser starting from noise in the 1-3 μm wavelength
range. The relevance to the LCLS project is discussed
and numerical simulations are shown. The cleaning up
of noise into the super radiant regime, which occurs
already at the low power level, is numerically
demonstrated for the first time with the 2-D code
GINGER.

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** Permanent address: Università di Milano and
INFN, Italy.