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**Luiz Gustavo Farah\*** (lgfarah@gmail.com), ICEx, Universidade Federal de Minas Gerais, Av. Antônio Carlos, 6627, Caixa Postal 702, Belo Horizonte, MG 30161-970, Brazil, and **Brian Pigott** and **Henrique Versieux**. *Linear and nonlinear profile decomposition for Supercritical Generalized KdV Equations with applications.*

A linear and nonlinear profile decomposition are established for solutions of supercritical generalized Korteweg-de Vries equations. As a consequence, we prove the existence of maximizers for some Airy-Strichartz inequalities (joint work with Henrique Versieux (UFMG-Brazil)) and also a concentration result for finite time blow-up solutions of the supercritical generalized Korteweg-de Vries equations that are of Type II (joint work with Brian Pigott (Wofford College)). (Received January 16, 2017)