1139-35-455   **Jose Luis Luna Garcia*** (`jlwwc@mail.missouri.edu`), 202 Math Sciences Building, 810 E. Rollins Street, Columbia, MO 65211, Columbia, MO 65211, and **Steve Hofmann**, **Svitlana Mayboroda**, **Simon Bortz** and **Bruno Poggi**. *Solvability of Elliptic Equations with Lower Order Terms.* Preliminary report.

We adress issues of solvability of boundary value problems in the upper half space $\mathbb{R}^{n+1}$ for elliptic operators of the form

$$Lu := -\operatorname{div}(A\nabla u) + \operatorname{div}(b_1 u) + b_2 \cdot \nabla u + V u, \tag{1}$$

where the coefficients are independent of the 'vertical' variable $t := x_{n+1}$, A is a bounded uniformly elliptic matrix, $b_1, b_2 \in L^n(\mathbb{R}^n)^{n+1}$ and $V \in L^{n/2}(\mathbb{R}^n)$ with the additional assumption that the quantities

$$\|b_i\|_{L^n(\mathbb{R}^n)}, \|V\|_{L^{n/2}(\mathbb{R}^n)} \tag{2}$$

are small enough (in particular to guarantee the coercivity of the associated bilinear form). (Received February 18, 2018)