1155-42-405 **Evangelos Dimou*** (ed8bg@virginia.edu), 141 Cabell Dr, Kerchof Hall, Charlottesville, VA 22904, and **Andreas Seeger** (seeger@math.wisc.edu). *On pointwise convergence of Schrodinger means.*

For $a > 0$, we consider the IVP

$$i\partial_t u(x,t) + (-\partial_{xx})^{a/2} u(x,t) = 0, \qquad u(x,0) = f(x); \quad (x,t) \in \mathbb{R} \times \mathbb{R}.$$

The solution is given by the generalized Schrödinger means operator

$$S^a f(x,t) = (2\pi)^{-1} \int_{\mathbb{R}} e^{i(x\xi + t|\xi|^a)} \hat{f}(\xi)\, d\xi.$$

It is a well known result that if $a > 1$, $\lim_{t\to 0} S^a f(x,t) = f(x)$ a.e. for every f in the Sobolev space H^s, if and only if $s \geq 1/4$. However it is conceivable that if the limit is taken along a sequence $t_n \to 0$, the space $H^{1/4}$ can be replaced with a bigger one. We will show that while this is true for some sequences $\{t_n\}$, it fails for others. More precisely, given $s > 0$, we provide a characterization of decreasing, convex sequences $\{t_n\}$ for which

$$\lim_{n\to\infty} S^a f(x,t_n) = f(x) \quad \text{a.e.}$$

holds for all $f \in H^s$. Some related results may be discussed if time permits. (Received January 19, 2020)