

# On dyadic nonlocal Schrödinger equations with Besov initial data

Hugo Aimar, Bruno Bongioanni, Ivana Gómez

(Submitted on 5 Jun 2012)

In this paper we characterize a dyadic type Besov space as an adequate setting to solve the Schrödinger-Dirac type equation  $\frac{\partial u}{\partial t} = D^{\beta} u$  with  $u(x,0) = u^0$  pointwise. Here  $D^{\beta}$  is the fractional derivative of order  $\beta$  associated to the dyadic distance  $\delta$  on  $(0,1)$ .

Comments: 17 pages, 4 figures, submitted  
Subjects: **Analysis of PDEs (math.AP)**  
MSC classes: 35Q41, 46E35  
Cite as: [arXiv:1206.0926](https://arxiv.org/abs/1206.0926) [math.AP]  
(or [arXiv:1206.0926v1](https://arxiv.org/abs/1206.0926v1) [math.AP] for this version)

## Submission history

From: Ivana Gómez Ivana [[view email](#)]  
[v1] Tue, 5 Jun 2012 13:33:19 GMT (16kb)

*Which authors of this paper are endorsers?*

## Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

## Current browse context:

math.AP

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1206](#)

## Change to browse by:

[math](#)

## References & Citations

- [NASA ADS](#)

## Bookmark (what is this?)



Science  
WISE