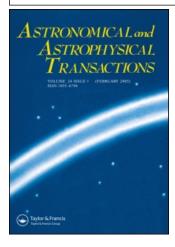
This article was downloaded by:[Bochkarev, N.]

On: 20 December 2007

Access Details: [subscription number 788631019]

Publisher: Taylor & Francis

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Astronomical & Astrophysical Transactions

The Journal of the Eurasian Astronomical Society

Publication details, including instructions for authors and subscription information: http://www.informaworld.com/smpp/title~content=t713453505

Dynamics of gaseous disks of spiral galaxies

A. M. Fridman ^a; O. V. Khoruzhyj ^a; V. V. Lyakhovich ^a; A. A. Sumin ^a Institute of Astronomy, Russian Academy of Science, Moscow, Russia

Online Publication Date: 01 May 1995

To cite this Article: Fridman, A. M., Khoruzhyj, O. V., Lyakhovich, V. V. and Sumin, A. A. (1995) 'Dynamics of gaseous disks of spiral galaxies', Astronomical &

Astrophysical Transactions, 7:4, 293

To link to this article: DOI: 10.1080/10556799508203280 URL: http://dx.doi.org/10.1080/10556799508203280

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: http://www.informaworld.com/terms-and-conditions-of-access.pdf

This article maybe used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

DYNAMICS OF GASEOUS DISKS OF SPIRAL GALAXIES[†]

A. M. FRIDMAN, O. V. KHORUZHYJ, V. V. LYAKHOVICH, and A. A. SUMIN

Institute of Astronomy, Russian Academy of Science, Moscow 109017, Russia

(Received December 25, 1993)

Gaseous disks of spiral galaxies may have two kinds of peculiarities. The first of them is a kink on the rotation curve. The point of the kink separates the central region where the angular velocity is constant from the one with differential rotation. In some galaxies (the Milky Way, Mrk 1040, etc.) there are more than one points of bend. The second of them is the jump of the surface density. It is observed in our Galaxy and there are no reasons to think that the latter is peculiar. In this work, we show that taking into account of these peculiarities is very important for building a dynamical picture of the spiral-vortex structure formation in gaseous disks of these galaxies.

KEY WORDS Gas disks - Dynamics, spiral - vortex structure

[†]Proceedings of the Conference held in Kosalma