

MEMORIE DELLA SOCIETÀ ASTRONOMICA ITALIANA

Vol.78 n.2 2007

Coronae of stars and accretion disks

Bonn, 12-13 December 2006

editors: M. Massi and T. Preibisch

TABLE OF CONTENTS

<i>Foreword</i>	221
<i>List of Participants</i>	224
Opening Talk	
E. Rieger <i>Discovering a solar periodicity by chance</i>	227
Session I: MAGNETIC RECONNECTION IN THE SUN AND STARS	
C. E. Parnell <i>3D Magnetic reconnection, flares and coronal heating</i>	229
L. Harra <i>Solar flares: the observations</i>	236
S. V. Berdyugina <i>Preferred longitudes in solar and stellar activity</i>	242
M. Massi <i>Stellar flaring periodicities</i>	247
P. Browning and S. Dalla <i>Particle acceleration at 3D magnetic reconnection sites</i>	255
C. Liefke, A. Reiners, and J. H. M. M. Schmitt <i>Magnetic field variations and a giant flare</i>	258
L. Contarino, P. Romano, and F. Zuccarello <i>Application of the Kopp and Pneuman model to an M2.5 flare</i>	261
B. P. Dabrowski and A. J. Kus <i>Millisecond solar radio spikes observed at 1420 MHz</i>	264

D. Dobrzycka

Solar coronal jets

268

Session II: SOLAR and STELLAR CORONAE

V. Holzwarth

Magnetic flux emergence in fast rotating stars

271

K. G. Strassmeier, T. Carroll, J. B. Rice, and I. S. Savanov

Resolving stellar surface spots

278

M. Güdel

X-Ray and radio emission from stellar coronae

285

B. V. Gudiksen

Heating the Solar Corona

293

E. Ros and M. Massi

The flaring corona of UX Arietis

298

J. Forbrich, Th. Preibisch, and K. M. Menten

Coronae in the Coronet: simultaneous X-ray to radio monitoring of a young stellar cluster

301

G. Hallinan, C. Lane, S. Bourke, A. Antonova, R. T. Zavala, W. F. Brisken, R. P. Boyle, F. J. Vrba, and A. Golden

Pulsating coherent radio emission from ultracool dwarfs

304

S.C. Marsden, M. Jardine, J.-F. Donati, P. Petit, M. Semel, and B.D. Carter

The photospheric magnetic field and coronal structure of HD 171488

307

J. Robrade, J.H.M.M. Schmitt, and A. Hempelmann

X-ray activity cycles in stellar coronae

311

M. Krause

Large scale magnetic fields in spiral galaxies

314

D. Uzdensky

Self-regulation of solar coronal heating via the collisionless reconnection condition

317

Session III: YOUNG STELLAR OBJECTS

T. Montmerle

What can X-rays tell us about accretion, mass loss, and magnetic fields in young stars?

320

Th. Preibisch

The origin of X-ray emission from T Tauri stars

332

M. Jardine

The spatial structure of the coronae of T Tauri stars

340

J. Ferreira and C. Zanni <i>On some MHD aspects of star-disc-jets systems</i>	348
S.G. Gregory, M. Jardine, A. Collier Cameron, and J.-F. Donati <i>Rotational modulation of X-ray emission from T Tauri stars</i>	356
H. M. Günther and J. H. M. M. Schmitt <i>Modelling the X-rays of classical T Tauri stars</i>	359
M. G. Petr-Gotzens and M. Massi <i>The enigmatic radio emission from θ¹ Orionis A</i>	362
J. Forbrich, M. Massi, E. Ros, A. Brunthaler, and K. M. Menten <i>VLBI observations of protostellar coronal radio emission towards YLW 15</i>	365
N. Grosso, et al. <i>X-ray emission from the young brown dwarfs of the Taurus Molecular Cloud</i>	368
M. Küker and G. Rüdiger <i>Funnel flows from protoplanetary disks</i>	371

Session IV: ACCRETION DISKS

A. Brandenburg and B. von Rekowski <i>Dynamics in accretion discs</i>	374
J. Malzac <i>Accretion disc coronae in black hole binaries</i>	382
A. Różańska, M. Sobolewska, and B. Czerny <i>Accretion disk with magnetic corona in AGN</i>	390
M. Kaufman Bernado and M. Massi <i>A basic condition for jet formation in accreting X-ray binaries</i>	393
A. Laor and E. Behar <i>On the origin of radio emission in radio quiet quasars</i>	397
L. Hric and R. Gális <i>Is there an accretion disc, envelope, or torus in the YY Her binary?</i>	400
D. Uzdensky and J. Goodman <i>Towards a statistical theory of a magnetized accretion disk corona</i>	403
N. K. Jackson, M. J. Church, M. Balucińska-Church, and G. S. Halai <i>Neutron star radiation pressure leading to jet formation in the brightest LMXB</i>	407
M. Mayer and J. E. Pringle <i>Time-dependent two-phase models of black hole accretion discs</i>	410
A. Sadovski <i>The revised GRV model of accretion disc coronae</i>	413

220		
L. C. Gallo		
<i>Evidence of coronal flaring in narrow-line Seyfert 1 galaxies</i>	416	
L.I. Matveyenko, D.A. Graham, and V.A. Demichev		
<i>Accretion disc and bipolar outflow in orion KL</i>	419	
Closing remarks		
M. Güdel		
<i>Magnetic coronae in an astrophysical context</i>	422	