Program of Kofu Symposium

New Look at the Sun with Emphasis on
Advanced Observations of Coronal Dynamics and Flares
- What Do We See with Yohkoh and Nobeyama Radioheliograph -

September 6-10, 1993
Kofu, Japan

Time Table

September	0900	1000 - 1300	1430-1800	1830-
06(Mon)	Registration	Welcome Address Opening Address Yohkoh Reviews NRH Introductions	Session A (1 - 12)	Reception
	0900 - 1300		1400 - 1830	
07(Tue)	Session B(13-26)		Session C(27-42)	
08(Wed)	Excursion to Nobeyama Radio Observatory			
	0900 - 1300		1400-1530 / 1530-1830	1830-
09(Thu)	Session D(43-56)		E(57-62) / Poster (P1 - P34)	Banquet
	0900 - 1300		1400 - 1700	
10(Fri)	Session F(63-76)		Session G(77-82)	

Welcome Address:- (1000-1005)
Kozai, Y.

Opening Address:- (1005-1015)
Enome, S.

Yohkoh Reviews:

Hudson, H. S. (1015-1045)
Thermal Plasmas (SXT and BCS)

Kosugi, T. (1045-1115)
Very high-energy Plasmas (HXT and WBS)

Yutaka Uchida (1115-1130)
Data use

==========<< Coffee Break:1130-1145>>==========

The Nobeyama Radioheliograph Introduction:

Nishio, M. (1145-1215)
Instrumentation

Hanaoka, Y. (1215-1245)
Data Reduction

Shibasaki, K. (1245-1300)
Data use

Coronal Dynamics and Quiet Corona:-
(15 minutes for each including discussion)

<<<<<<<<<<< Session A(1-12):Monday Afternoon >>>>>>>>>>>>>>>>

001(O) Strong, K. T.
Observations of the structure and dynamics of coronal loops.

002(O) Hara, H., Tsuneta, S., Hudson, H. S., and Morrison,M. D.
The X-ray intensity distribution of the corona and its variability associated with solar activity.

003(O) Shimizu, T.
Active-region transient brightenings (soft X-ray microflares) and the heating of active region coronae.

004(O) Porter, J., Moore, R., Roumeliotis, G., Tsuneta, S., Sturrock, P., and Acton, L. W.
Observations of coronal heat injection from low-lying microflares.

005(O) Kopp, R. A. and Poletto, G.*
Nanoflares as coronal heating agents.

006(O) Shibata, K., Shimojo, M., and Yokoyama, T.
Coronal X-ray jets: Observations and theories.

007(O) Kundu, M. R., Shibasaki, K., Enome, S., and Nitta, N.
Observation of 17 GHz Emission from Flaring X-ray Bright Points.

008(O) Uchida Y., Khan, J., Fludra, A., and McAllister, A.
Injection of heated mass into helix-like field structure in May, 1992.

009(O) Moore, R., Porter, J., Roumeliotis, G., Tsuneta, S., Sturrock, P., and Acton, L. W.
Observations of enhanced coronal heating in sheared magnetic fields.

010(O) Priest, E. R.
Dynamic heating of the solar corona.

011(O) Watanabe, Te.
Characteristics of microflares seen in helium-like sulphur spectra: GOES A-class flares during the minimum activity phase.

011(O)-extra- J. R. Lemen, G. L. Slater, H. S. Hudson L. W. Acton
The Extended and Diffuse X-ray Corona Observed by Yohkoh-SXT

012(O) Sime, D. G., Hundhausen, A. J., Hiei, E., and Hara, H.
The soft X-ray emission associated with the high latitude mass ejection and eruptive prominence on April 4, 1992.

<<<<<<<<<<<<<<<<<< Reception:Monday Evening >>>>>>>>>>>>>>>>>

<<<<<<<<<<<<< Session B(13-26):Tuesday Morning >>>>>>>>>>>>>>>>

013(O) Kojima, M., Misawa, H., Kozuka, Y., Yamauchi, Y., Watanabe, H., and Manoharan, P. K.
Low-speed solar winds observed at distances of 20-60 Rs and coronal structure of their source regions.

014(O)Watanabe, Ta., Kojima, M., Kozuka, Y., Tsuneta, S., Yatagai, H., Lemen, J. R., Hudson, H. S., Joselyn, J. A., Klimchuk, J. A., and Dryer, M.
Interplanetary Consequences of Transients Coronal Events.

015(O) Manoharan, P. K., Ananthakrishnan, S., Detman, T. R., Dryer, M., Leinbach, H., Kojima, M., Watanabe, Ta., and Khan, J.
Solar wind velocity and normalized scintillation index from single- station IPS observations.

016(O) Ichimoto, K., Kumagai, K., Hara, H., Takeda, A., and Yohkoh SXT Team
Spectroscopic observation of corona at the Norikura Solar Observatory.

Flares:-
(15 minutes for each including discussion)

017(O) [Cancellation] Metcalf, T., Mickey, D., Canfield, R., and Wuelser, J.-P.
A search for low energy protons in several solar flares from October, 1992.

018(O) Culhane, J. L., and Phillips, A. T.
Energy transport mechanisms and the events of 15th November and 16th December 1991.

019(O) Kawabata, K.
Positron annihilation radiation from the 15 Nov. 1991 Flare.

020(O) Kosugi, T., Sakao, T., and Masuda, S., Hara, H., Shimizu, T, and Hudson, H. S.
Hard and soft X-ray observations of a super-hot thermal flare of 6 February, 1992.

021(O) Sterling, A. C.
Yohkoh Bragg Crystal Spectrometer (BCS) observations of the 6-Feb-1992 Limb Flare.

022(O) K. Ohki M. Yoshimori, K. Suga, K. Morimoto, T. Hiraoka, J. Sato, and K. Kawabata
Spectral Observation of Spike Bursts.

023(O) Suematsu Y.
A very small two-ribbon flare of GOES X-ray class B6.7.

024(O) Anwar, B., Hiei, H., Hudson, H. S., Acton, L. W., Lemen, J., and Metcalf, T.
Temperature analysis of the post-flare loops of June 25-26, 1992.

025(O) Takano, T.*, Radioheliograph Group, Yohkoh Team, and Mitaka Flare Telescope Group
Sub-second brightenings of radio images at the beginning of a solar flare on Aug. 12, 1992.

026(O) Enome, S.*, Radioheliograph Group, Takahashi, M., Sakai, J.-I., Takakura, T., Sakao, T., Kosugi, T.
Alignment of radio, soft X-ray and hard X-ray images of August 17-18, 1992 flare.

<<<<<<<<<<<<<< Session C(27-42):Tuesday Afternoon >>>>>>>>>>>>>>

027(O) Yaji, K., Kosugi, T., Sakao, T., and Masuda, S., and Inda-Koide, M.
Comparison of hard and soft X-ray flare sources in NOAA 7270.

028(O) Kitai R.*, Kurokawa, H., Funakoshi, Y., Nakai, Y., Shibata, K., Yaji, K., Nitta, N., Yohkoh Team, and Mitaka Flare Telescope Group
Flares in NOAA 7270 on Sep. 6, 1992.

029(O) Nishio, M., and Radioheliograph Group
Radio observations of the flare productive active region NOAA 7321.

030(O) Takakura, T., HXT Group, Nishio, M., and the Radioheliograph Group
Dynamics of flare source inferred from hard X-ray and radio observations: 1992 Oct. 27

flare.

031(O) Inda-Koide, M., Sakai, J.-I., Koide, S., Zhao, J., and Kosugi, T.
Yohkoh HXT observations of a solar flare on 9 December 1992.

032(O) Gary, D., Enome, S., and Bruner, M.
OVRO and NRO observations of a gradual flare of June 3-4, 1993 with wide spectral range and high space-time resolution.

033(O) Bruner, M. E., Enome, S., Gary, D., Strong, K. T., and Tsuneta, S.
Yohkoh soft X-ray observations of the 1993 June 3-4 flare.

034(O) Sakao, T. Kosugi, T., Masuda, S., Yaji, K.,Inda-Koide, M., Makishima, K.
Hard X-ray imaging observations of footpoint sources in impulsive solar flares.

035(O) Khan, J. I., Uchida, Y., Feldman, U., and Doschek, G.
Some Soft X-ray Simple-Loop Flares Observed by Yohkoh.

036(O) Doschek, G. A.
The electron density in the localized bright regions at the tops of flare loops.

037(O) Seely, J. F., Feldman, U., Doschek, G. A., Strong, K. T., Acton, L. W., Uchida, Y., and Tsuneta, S.
Morphology of the 10^7 K plasma in solar flares.

038(O) Hanaoka, Y., and Radioheliograph Group and Yohkoh Team
Long duration events observed by the Nobeyama Radioheliograph.

039(O) Nakajima, H., Radioheliograph Group, Yohkoh Team, and Mitaka Flare Telescope Group
Morphological development of gradual, nonthermal microwave flares.

040(O) Bentley, R. D., Doschek, G. A., and Simnet, G. M.
Further analysis of the relationship between the soft X-ray blue wing and the hard X-ray burst.

041(O) Kato, T., Fujiwara, T., and BCS Group
BCS spectra from flares on 6th September 1992.

042(O) Batchelor, D. [Cancellation]
A comparison of morphologies and dynamics of solar flare X-ray sources.

<<<<<< Excursion to Nobeyama Radio Observatory:Wednesday >>>>>>>

<<<<<<<<<<<<<< Session D(43-56):Thursday Morning>>>>>>>>>>>>>>

043(O) Wuelser, J.-P., Canfield, R., Sakao, T., Masuda, S., Kosugi, T., and Tsuneta, S.
H-alpha and X-ray signatures of chromospheric heating observed in solar flares.

044(O) Bastian, T. S., Nitta, N., Kiplinger, A. L., Dulk, G. A., Rilee, M., and Doschek, G. A.
Energy transport during a solar flare: A case study.

045(O) White, S. M., Silva, A. S., Hudson, H. S., Lin, R. P., Kundu, M. R., and Pater, I. de
Multiwavelength observations of a solar flare.

046(O) Shibasaki, K., and Radioheliograph Group
Structural changes of radio sources during early phase of small bursts.

047(O) Masuda, S., Kosugi, T., Sakao, T., Tsuneta, S., Hudson, H. S.
Vertical structure of thermal/nonthermal hard X-ray sources in solar flares.

048(O) Cheng, C.-C. and Yohkoh Team
Thermal and nonthermal energizations in solar flares: Results in soft and hard X-rays from Yohkoh and GRO.

049(O) Dennis, B. R., Holman, G. D., Hudson, H. S., Kosugi, T., Strong, K. T., and Zarro, D.
Evidence for both electron acceleration and direct heating in solar flares.

050(O) Zarro, D. M., Mariska, J. T. and Dennis, B. R.
Studying solar flares with Yohkoh and CGRO/BATSE.

051(O) Benka, S.
DC electric fields in solar flares: Theory meets observation.

052(O) Hirayama, T.
Preliminary study of particle accelerations in the neutral sheet.

053(O) Melrose, D. B.
The current profile and energy release in solar flares.

054(O) Petrosian, V.
The role of plasma turbulence in heating and acceleration.

055(O) Ono, Y., Morita, A., Katsurai, M., and Yamada, M.
Experimental investigation of three dimensional magnetic reconnection by use of two colliding spheromaks.

056(O) Koide, S., Sakai, J.-I.
Three dimensional simulation of collapse of shell current magnetic loop.

<<<<<<<<<<<<<< Session E(57-62):Thursday Afternoon >>>>>>>>>>>>>

057(O) Ugai, M.
Computer simulations on the fast reconnection mechanism.

058(O) Takeuchi, S.
Particle dynamics in magnetic field reconnection.

061(O) Sakai, J.-I., Zhao, J., and Nishikawa, K. I.
Current loop heating by magnetic pinch and electromagnetic wave emissions simulated by 3-D EM particle code.

059(O) Zhao, J., Sakai, J.-I., and Nishikawa, K. I.
Electromagnetic emission in plasmas with an electron temperature anisotropy studied by a 3-D particle code.

060(O) Nishikawa, K. I., Sakai, J.-I., Zhao, J., and Neubert, T.
Current loop coalescence with helical instability simulated by a 3-D EM particle code.

062(O) Krueger, A., Hildebandt, J., and Urpo, S.
Evolution of coronal mm-wave sources.

<<<<<<<<<<<<<<<<< Poster Session:Thursday Afternoon>>>>>>>>>>>>>>>

<<<<<<<<<<<<<<<<< Banquet: Thursday Evening >>>>>>>>>>>>>>>>>>>

<<<<<<<<<<<<<<<<< Session F(63-76):Friday Morning >>>>>>>>>>>>>>>

063(O) Fomichev, V. V.[Cancellation]
Relation between gamma-ray emission, radio bursts, and proton fluxes from solar flares.

064(O) Pick, M.
Acceleration processes, electron beam propagation and magnetic field structures in the corona and the heliosphere.

065(O) Muraki, Y., Murakami, K., Miyazaki, M., Mitsui, K., Nakajima, H., Shibata, S., Sakakibara, S., Sakai, T., Takahashi, T., Yamada, T., and Yamaguchi, K.
Comments on June 4th 1991 Solar Neutron Event.

066(O) Yoshimori, M., Suga, K., Morimoto, K., Hiraoka, T., and Sato, J.
Gamma-ray spectral observations from Yohkoh.

067(O) Ramaty, R.
Long term trapping vs. continuous acceleration of Gev ions in solar flares.

068(O) Sakurai, K.
Ionization states of solar-flare particles.

Active Regions:-
(15 minutes for each including discussion)

069(O) Kurokawa, H.*, Kitai, R., Ichimoto, K., and Zhang, H.
A morphological study of magnetic shear development in the flare-productive NOAA 7270 region.

070(O) Kawai, G.
Emerging flux regions observed in soft X-ray and H-alpha.

071(O) Dere, K. P.
HRTS observations of explosive events in a flaring active region.

072(O) Korendyke, C. M., Dere, K. P., and Brueckner, G. E.
Combined HRTS-8 sounding rocket observations and Yohkoh X-ray observations of an active region at the solar limb.

073(O) Schmieder, B.
Evolution of active regions leading to flares.

074(O) Phillips, K. J. H., Pike, C. D., Lang, J.*, and Watanabe, Te.
The photospheric-to-coronal iron abundance from X-ray lines observed by Yohkoh and other satellites.

075(O) Saba, J. L. R. and Strong, K. T.
Active region dynamics and composition.

076(O) Tarbell, T., Tsuneta, S., Title, A., Shine, D., Shimizu, T., Hara, H., and Kano, R.
High resolution observations of the photosphere and chromosphere coordinated with Yohkoh.

<<<<<<<<<<<<< Session G(77-82) : Friday Afternoon >>>>>>>>>>>>>>

077(O) Zheleznyakov V.V.
Neutral current sheets in active regions: evidence from radio observations.

Instrumentation:-
(15 minutes for each including discussion)

078(O) Bornmann P. L.
Automatic recognition of solar features in Ground-based and Yohkoh images.

079(O) Roumeliotis G.
A novel deconvolution technique applied to SXT images.

080(O) Rolli E.
First CCD observations of a flare in H-epsilon and Ca-II(H).

081(O) Dennis B. R.
The High Energy Solar Physics mission (HESP) implementation on Lightsats.

Posters:-
(Poster Board is 90cm(W) x 210cm(H))

001(P) Schmieder B., Golub L., Mouradian Z., Antiochos S.
Coronal structures observed in X-rays(NIXT) and H-alpha surges.

002(P) Klimchuk, J. A. and Gary, D. E.*
Comparison of coronal temperatures and emission measures determined from X-ray and microwave observations.

003(P) Bastian T. S.
Propagation of radio waves in the sun's corona: Angular broadening in the limit of small-angle scattering.

004(P) Takano, T. and Radioheliograph Group
Installation of Dual-Frequency Optics to the Nobeyama Radio-heliograph.

005(P) Kaufmann, P., Magun, A., Rovira, M., and Levato, H.
Recent Results of 48 GHz dynamic imaging of solar bursts and the new project for a solar submillimeter telescope (SST).

006(P) Karovska, M.
Determining point response functions from space observations using blind iterative deconvolution algorithm.

007(P) Karovska, M. and Hudson, H. S.
The fine scale structure of the solar limb in a coronal hole.

008(P) Hiei, E., Sime*, D. G., and Watanabe, Ta.
The location of soft X-ray emission within an active region mass ejection.

009(P) Hammer, R.
Thermal conduction in the transition region and its effects on the energy balance of open coronal regions.

010(P) Schmieder, B., Fontenla, J., Simnett, G. M., and Tandberg-Hansen, E.
Microflares and their related events.

011(P) Kundu, M. R., Strong, K. T., Pick, M., Harvey, K., Kane, S. R., White, S. M., Hudson, H. S. Metric Type III bursts from flaring X-ray bright points.

012(P) Gopalswamy, N., Schmahl, E. J., and Kundu*, M. R., Lemen, J. R., Strong, K. T., Canfield, R. C., and Beaujardiere, J. de la
A study of active region magnetic field structure using VLA-radio, Yohkoh X-ray and Mees observations.

013(P) Kundu, M. K., Shibasaki, K., Enome, S., Nitta, N., and Bruner, M.
Evolution of an active region and flare productivity.

014(P) Aschwanden, M. J. and Bastian, T. S.*
VLA stereoscopy of solar active regions.

015(P) Kozuka, Y., Watanabe, Ta., Kojima, M., Ohyama, M., and Saito, T.
Rotation rates of soft X-ray coronal structures.

016(P) Sakurai, T.
A potential field model for open or cusp-shaped field lines in the active region corona.

017(P) Yokoyama, T. and Shibata, K.
A model of X-ray jets and loop brightenings associated with emerging flux.

018(P) Shibata, S., Murakami, K., and Muraki, Y.*
Solar Neutron Events of Cycle 22.

019(P) Savy S.
Plasma dynamics for a number of compact flares on and off the solar limb.

020(P) Akimov, V. V., Belov, A. V., Chertok, I. M., Kurt, V. G., Magun, A.*, and Melnikov, V. F.
The high energy gamma-ray flare of June 15, 1991: Some evidences of prolonged particle acceleration at the post eruptive phase.

021(P) L. van Driel-Gesztelyi, L., Hudson, H. S., Anwar, B., Hiei, E., and Tsuneta, S.,
A Search for "Black Light Flares"

022(P) Isobe, S. and Ambadi Satheesh-Kumar
Variation of F corona and magnetic effect.

023(P) Takeda, A.
Thermal and density structure from the 1991 Mexico eclipse.

024(P) Nitta, N., Driel-Gesztelyi, L. v., Leka, K. D., Mickey, D. L., Metcalf, T. R., Wuelser, J.-P. Ichimoto, K., Sakurai, T., and Shibata, K.
Flares in active region NOAA 7260 - Role of emerging flux and reconnection.

025(P) McTiernan, J. M.*, Kane, S. R., Hurley, K., Laros, J. G., Fenimore, E. E., Klebsadel, R. W., Sommer, M., Yoshimori, M., and Kosugi, T.
Comparison of Yohkoh, Ulysses, and PVO data with thick-target electron beam models for the 15-NOV-1991 flare.

026(P) Fludra A., Jakimiec, J., Tomczak, M., Culhane, J. L.*, Acton, L. W.
Long duration events in magnetic arcades and large loops

027(P) Hudson, H. S., Driel-Gesztelyi, L. v.*, and Kosugi, T.
Analysis of three Yohkoh white-light flares.

028(P) Tokumaru, M., Mori, H., Tanaka, T., Kondo, T., Takaba, H., and Koyama, Y.
Solar wind velocities derived from dual-frequency (2/8 GHz) interplanetary scintillation observations.

029(P) Struminsky, A., Matsuoka, M. and Takahashi, K.
Evidence of additional production of high energy neutrons in the 4 June 1991 solar flare

030(P) Shoji, M.
Flare impulsive phase spectra - Comparison between H-alpha, Ca II K, and other lines.

031(P) Yang, L.
A study of the observing data obtained by full disk magnetograph.

032(P) Watari, S., Isobe, T., and the Yohkoh Team
Soft X-ray feature in active regions associated with meter wavelength solar radio emission.

033(P) Qijun Fu, Yuying Liu, and Chungsheng Li
Correlation between Solar Microwave Bursts and Hard X-ray Flares

034(P) Pick, M.
Nançay Radioheliograph.