

19th Joint Workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating 2016 (EC-19)

EPJ Web of Conferences Volume 147 (2017)

Gandhinagar, India
4 - 7 April 2016

Editors:

**B.K. Shukla
H.B. Pandya
S.L. Rao**

ISBN: 978-1-5108-4513-8

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

This work is licensed under a Creative Commons Attribution license:
<http://creativecommons.org/licenses/by/2.0/>

You are free to:

Share – copy and redistribute the material in any medium or format.

Adapt – remix, transform, and build upon the material for any purpose, even commercial.

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

You must give appropriate credit, provide a link to the license, and indicate if changes were made.

You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. The copyright is retained by the corresponding authors.

Printed by Curran Associates, Inc. (2017)

For additional information, please contact EDP Sciences – Web of Conferences
at the address below.

EDP Sciences – Web of Conferences
17, Avenue du Hoggar
Parc d'Activité de Courtabœuf
BP 112
F-91944 Les Ulis Cedex A
France

Phone: +33 (0) 1 69 18 75 75

Fax: +33 (0) 1 69 28 84 91

contact-edps@webofconferences.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

PERTURBING MICROWAVE BEAMS BY PLASMA DENSITY FLUCTUATIONS	1
<i>Köhn Alf, Holzhauser Eberhard, Leddy Jarrod, Thomas Matthew B., Vann Roddy G. L.</i>	
A KINETIC STUDY OF MICROWAVE START-UP OF TOKAMAK PLASMAS	6
<i>du Toit E.J., O'Brien M.R., Vann R.G.L.</i>	
STUDY OF ENERGETIC PARTICLE PHYSICS WITH ADVANCED ECEI SYSTEM ON THE HL-2A TOKAMAK.....	12
<i>Shi Zhongbing, Jiang Min, Yu Liming, Chen Wei, Shi Peiwan, Zhong Wulyu, Yang Zengchen, Zhang Boyu, Ji Xiaoquan, Li Yonggao, Zhou Yan, Song Shaodong, Huang Mei, Song Xianming, Li Jiaxuan, Yuan Baoshan, Fu Bingzhong, Liu Zetian, Ding Xuantong, Xu Yuhong, Yang Qingwei, Duan Xuru</i>	
SUMMARY OF ECE PRESENTATIONS AT EC-19.....	18
<i>Austin M. E.</i>	
RADIATION TRANSPORT MODELLING FOR THE INTERPRETATION OF OBLIQUE ECE MEASUREMENTS	21
<i>Denk Severin S., Fischer Rainer, Maj Omar, Poli Emanuele, Stober Jörg K., Stroth Ulrich, Vanovac Branka, Suttrop Wolfgang, Willensdorfer Matthias, ASDEX Upgrade Team</i>	
UPDATE ON THE STATUS OF THE ITER ECE DIAGNOSTIC DESIGN.....	27
<i>Taylor G., Austin M. E., Basile A., Beno J. H., Danani S., Feder R., Houshmandyar S., Hubbard A. E., Johnson D. W., Khodak A., Kumar R., Kumar S., Ouroua A., Padasalagi S. B., Pandya H. K. B., Phillips P. E., Rowan W. L., Stillerman J., Thomas S., Udintsev V. S., Vayakis G., Walsh M., Weeks D.</i>	
TESTING OF THE PROTOTYPE RECEIVER FOR ITER ECE DIAGNOSTIC.....	33
<i>Danani S., Austin M. E., Brookman M.W., Pandya H. K. B., Kumar Vinay</i>	
ELECTRON CYCLOTRON EMISSION (ECE) AND CORRELATION ECE DIAGNOSTICS ON TCV	36
<i>Fontana Matteo, Porte Laurie, Marmillod Philippe</i>	
EXPERIMENTAL MEASUREMENT OF ECH DEPOSITION BROADENING: BEYOND ANOMALOUS TRANSPORT	40
<i>Brookman M. W., Austin M. E., Gentle K. W., Petty C. C., Ernst D. E., Peysson Y., Decker J., Barada K.</i>	
EXPERIMENTAL INVESTIGATION OF THE ECRH STRAY RADIATION DURING THE START-UP PHASE IN WENDELSTEIN 7-X.....	48
<i>Moseev Dmitry, Laqua Heinrich, Marsen Stefan, Stange Torsten, Braune Harald, Erckmann Volker, Gellert Florian, Oosterbeek Johann Wilhelm, Wenzel Uwe, W7-X Team</i>	
PROTECTING AGAINST DAMAGE FROM REFRACTION OF HIGH POWER MICROWAVES IN THE DIII-D TOKAMAK	52
<i>Lohr John, Brambila Rigo, Cengher Mirela, Chen Xi, Gorelov Yuri, Grosnickle William, Moeller Charles, Ponce Dan, Prater Ron, Torrezan Antonio, Austin Max, Doyle Edward, Hu Xing, Dormier Calvin</i>	
SUMMARY OF PAPERS ON TECHNOLOGY	58
<i>Plaum Burkhard</i>	
PROGRESS IN CONCEPTUAL DESIGN OF EU DEMO EC SYSTEM.....	60
<i>Garavaglia Saul, Bruschi Alex, Franke Thomas, Granucci Gustavo, Grossetti Giovanni, Jelonnek John, Moro Alessandro, Poli Emanuele, Rispoli Natale, Strauss Dirk, Tran Quang Minh</i>	
SERIES OF POWERFUL CW GYROTRONS IN THE RANGE 105 – 140 GHZ.....	65
<i>Denisov Gregory, Kazansky Igor, Malygin Vladimir, Soluyanova Elena, Tai Evgeny, Chirkov Aleksey</i>	
REMOTE-STEERING ANTENNAS FOR 140 GHZ ELECTRON CYCLOTRON HEATING OF THE STELLARATOR W7-X.....	67
<i>Lechte C., Kasperek W., Plaum B., Zeidler A., Erckmann V., Laqua H., Schneider N., Weissgerber M., Bechtold A., Busch M., Szepaniak B.</i>	
DESIGN, DEVELOPMENT & FUNCTIONAL VALIDATION OF MAGNETS SYSTEM IN SUPPORT OF 42 GHZ GYROTRON IN INDIA	72
<i>Pradhan S., Raj P., Prasad U., Ghate M., Khristi Y., Panchal A., Bhavsar D., Banudha M., Kedia S., Sharma A.N., Kanabar D., Parghi B.</i>	
DESIGN AND RESEARCH OF ELECTRON CYCLOTRON RESONANCE HEATING AND CURRENT DIVE SYSTEM ON HL-2M TOKAMAK	81
<i>Huang Mei, Rao Jao, Song Shaodong, Wang He, Chen Gangyu, Kang Zhihua, Zhang Feng, Wang Jieqiong, Ye Jiruo, Feng Kun, Lu Bo, Huang Bo, Wang Chao, Wang Mingwei, Xuan Weimin, Rao Lieying, Li Qing, Mao Xiaohui, Duan Xuru, Liu Yong</i>	
DESIGN AND ANALYSIS OF STEERABLE ECRH LAUNCHER FOR SST-1 TOKAMAK	86
<i>Mistry Hardik, Shukla B K</i>	

PROPOSAL OF MODE SELECTION CRITERIAN FOR ADVANCED KDEMO GYROTRON.....	90
<i>Sawant Ashwini, Choe Mun Seok, Choi EunMi</i>	
THE EXPERIMENTAL VERIFICATION OF GAUSSIAN BEAM COUPLING FOR ECH TRANSMISSION LINE AT 400 GHZ.....	92
<i>Choe Mun Seok, Sawant Ashwini, Choi EunMi</i>	
INSTRUMENTATION AND CONTROL SYSTEM ARCHITECTURE OF ECRH SST1	94
<i>Patel Harshida, Patel Jatin, purohit Dharmesh, Shukla B K, Babu Rajan, Mistry Hardik, ECRH team</i>	
Author Index	