

LHDプラズマ実験予定表

作成者  
武村勇輝  
田村直樹

| 実験日   | 本日の実験テーマ  |          |               |        |  |             |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
|---|---|----------|---------------|--------|--|-------------|-----------|----|--|---------------|----|----|----|----|----------|--------|----------|--------|--------|-------|-------|-----------|---|--|----|------|------|--------|-------|--|---|---|----|-----|------|--------|-------|--|---|---|----|------|-------|--------|-------|--|---|--|----|-----|-----|--------|-------|--|---|---|----|-----|--------|--------|-------|--|---|---|----|-----|------|--------|-------|--|---|---|----|-----|------|--------|-------|--|---|---|----|-----|------|--------|-------|--|--|
| 2022年<br>10月7日(金)   | 輸送のベータ効果、光渦<br>不純物パウダードロッパーを用いたダスト落下速度の系統的スキャンによるエルゴード層の不純物遮蔽性能の検討, D(H)プラズマにおけるICHのコミッショニング<br>EBW |          |               |        |  |             |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 実験番号  | トピカルグループ  |          |               |        | トピカルグループリーダー                                     |             |           |    | トピカルグループサブリーダー                                 |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 1282  | instability/multi-ion   |          |               |        | 永岡賢一/武村勇輝<br>田村直樹/小林政弘<br>[2177/2167, 2337/2169] |             |           |    | 關良輔/鈺持尚輝<br>笠原寛史/本島巖<br>[2201/2208, 2203/2142] |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 実験スケジュール  | 8   | 9        | 10            | 11     | 12   | 13          | 14        | 15 | 16   | 17            | 18 | 19 | 20 | 21 | 22       |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
|   |   | 励磁       | [instability] |        |  | [multi-ion] |           |    |  | [instability] | 減磁 |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 実験内容、条件   |   |          |               |        |  |             |           |    |  |               |    |    |    |    | 入射ガス種    |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| [instability](09:30 ~ 12:45)ECH, NBI<br>9:45-12:45 輸送のベータ効果 (Knieps)<br>piggyback 光渦ECHコミッショニング (辻村)<br>最大放電数: 120<br>シーケンス:3分  |   |          |               |        |  |             |           |    |  |               |    |    |    |    | H2,D2    |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| <table border="1"> <thead> <tr> <th>#</th> <th>Option</th> <th>Polarity</th> <th>Rax(m)</th> <th>Bax(T)</th> <th>gamma</th> <th>Bq(%)</th> <th>Subcooled</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td>CW</td><td>3.9</td><td>1.0</td><td>1.2538</td><td>100.0</td><td></td></tr> <tr><td>2</td><td>✓</td><td>CW</td><td>3.6</td><td>2.75</td><td>1.2538</td><td>100.0</td><td></td></tr> <tr><td>3</td><td>✓</td><td>CW</td><td>3.75</td><td>1.0</td><td>1.2538</td><td>100.0</td><td></td></tr> </tbody> </table>  |   |          |               |        |  |             |           |    |  |               |    |    |    |    | #        | Option | Polarity | Rax(m) | Bax(T) | gamma | Bq(%) | Subcooled | 1 |  | CW | 3.9  | 1.0  | 1.2538 | 100.0 |  | 2 | ✓ | CW | 3.6 | 2.75 | 1.2538 | 100.0 |  | 3 | ✓ | CW | 3.75 | 1.0   | 1.2538 | 100.0 |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| #   | Option  | Polarity | Rax(m)        | Bax(T) | gamma  | Bq(%)       | Subcooled |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 1   |   | CW       | 3.9           | 1.0    | 1.2538   | 100.0       |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 2   | ✓   | CW       | 3.6           | 2.75   | 1.2538   | 100.0       |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 3   | ✓   | CW       | 3.75          | 1.0    | 1.2538   | 100.0       |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| [multi-ion](12:45 ~ 17:15)ECH, NBI, ICH<br>13:15-15:20 不純物パウダードロッパーによるダスト落下実験 (庄司)。<br>(3.9m*, 3.75m, 3.6m), *: オプション<br>15:20-17:20 D(H)プラズマにおけるICHのコミッショニング (ICHグループ、笠原)<br>(2.75T, 2.735T, 2.65T*, 2.63T*, 2.6T, 2.58T*), *: オプション<br>最大放電数: 120<br>シーケンス:3分   |   |          |               |        |  |             |           |    |  |               |    |    |    |    | H2,D2,Ar |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| <table border="1"> <thead> <tr> <th>#</th> <th>Option</th> <th>Polarity</th> <th>Rax(m)</th> <th>Bax(T)</th> <th>gamma</th> <th>Bq(%)</th> <th>Subcooled</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td>CW</td><td>3.75</td><td>2.64</td><td>1.2538</td><td>100.0</td><td></td></tr> <tr><td>2</td><td></td><td>CW</td><td>3.6</td><td>2.75</td><td>1.2538</td><td>100.0</td><td></td></tr> <tr><td>3</td><td></td><td>CW</td><td>3.6</td><td>2.735</td><td>1.2538</td><td>100.0</td><td></td></tr> <tr><td>4</td><td></td><td>CW</td><td>3.6</td><td>2.6</td><td>1.2538</td><td>100.0</td><td></td></tr> <tr><td>5</td><td>✓</td><td>CW</td><td>3.9</td><td>2.5385</td><td>1.2538</td><td>100.0</td><td></td></tr> <tr><td>6</td><td>✓</td><td>CW</td><td>3.6</td><td>2.65</td><td>1.2538</td><td>100.0</td><td></td></tr> <tr><td>7</td><td>✓</td><td>CW</td><td>3.6</td><td>2.63</td><td>1.2538</td><td>100.0</td><td></td></tr> <tr><td>8</td><td>✓</td><td>CW</td><td>3.6</td><td>2.58</td><td>1.2538</td><td>100.0</td><td></td></tr> </tbody> </table> |   |          |               |        |  |             |           |    |  |               |    |    |    |    | #        | Option | Polarity | Rax(m) | Bax(T) | gamma | Bq(%) | Subcooled | 1 |  | CW | 3.75 | 2.64 | 1.2538 | 100.0 |  | 2 |   | CW | 3.6 | 2.75 | 1.2538 | 100.0 |  | 3 |   | CW | 3.6  | 2.735 | 1.2538 | 100.0 |  | 4 |  | CW | 3.6 | 2.6 | 1.2538 | 100.0 |  | 5 | ✓ | CW | 3.9 | 2.5385 | 1.2538 | 100.0 |  | 6 | ✓ | CW | 3.6 | 2.65 | 1.2538 | 100.0 |  | 7 | ✓ | CW | 3.6 | 2.63 | 1.2538 | 100.0 |  | 8 | ✓ | CW | 3.6 | 2.58 | 1.2538 | 100.0 |  |  |
| #   | Option  | Polarity | Rax(m)        | Bax(T) | gamma  | Bq(%)       | Subcooled |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 1   |   | CW       | 3.75          | 2.64   | 1.2538   | 100.0       |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 2   |   | CW       | 3.6           | 2.75   | 1.2538   | 100.0       |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 3   |   | CW       | 3.6           | 2.735  | 1.2538   | 100.0       |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 4   |   | CW       | 3.6           | 2.6    | 1.2538   | 100.0       |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 5   | ✓   | CW       | 3.9           | 2.5385 | 1.2538   | 100.0       |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 6   | ✓   | CW       | 3.6           | 2.65   | 1.2538   | 100.0       |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 7   | ✓   | CW       | 3.6           | 2.63   | 1.2538   | 100.0       |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 8   | ✓   | CW       | 3.6           | 2.58   | 1.2538   | 100.0       |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| [instability](17:15 ~ 18:45)ECH, NBI<br>17:45-18:45 EBW実験 (伊神)<br>最大放電数: 30<br>シーケンス:3分   |   |          |               |        |  |             |           |    |  |               |    |    |    |    | H2,D2    |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
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| #   | Option  | Polarity | Rax(m)        | Bax(T) | gamma  | Bq(%)       | Subcooled |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 1   |   | CW       | 3.56          | 1.0    | 1.2538   | 100.0       |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| コンディショニング   |   |          |               |        |  |             |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 前夜GD: なし, Divクライオ: なし   |   |          |               |        |  |             |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 特記事項  |   |          |               |        |  |             |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |
| 磁性体の持込規制(持込書類による確認)<br>(instability)Fast TS, Divertor Langmuir probe with fast mode<br>(multi-ion)IPDから種々のダスト(B, C, Li)落下、ステレオ視高速カメラ(2.5Uに新設)計測、CXSによるボロン密度分布の計測、プラズマ周辺部の各種不純物計測<br>CXSによるイオン温度分布、FIDAによる高速イオン計測、高感度H,D比計測<br>【LHD実験実施時注意事項】<br>(id:677) 不純物: ガスバフ<br>(id:678) 不純物: パウダードロップ<br>(id:684) ICH: 待機位置運転<br>(id:696) ICH: 真空へのパワー入射<br>(id:706) ICH: 電力入射のためのアンテナ挿入(まとめ)<br>(id:712) NBI: 低磁場放電への入射<br>(id:718) ECH: 光渦入射: サブクールが必要   |   |          |               |        |  |             |           |    |  |               |    |    |    |    |          |        |          |        |        |       |       |           |   |  |    |      |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |      |       |        |       |  |   |  |    |     |     |        |       |  |   |   |    |     |        |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |   |   |    |     |      |        |       |  |  |

## 実験及び緊急時の体制

<実験体制>

<緊急時の体制>

|                |               |                      |                            |
|----------------|---------------|----------------------|----------------------------|
|                | 自衛消防隊 地区隊隊長   | 長壁正樹                 | [2180]                     |
| 実験責任者          | 自衛消防隊 地区隊隊長代理 | 田中謙治/永岡賢一            | [2226, 2177]               |
| トピカルグループリーダー   | 記録確認          | 永岡賢一/武村勇輝, 田村直樹/小林政弘 | [2177/2167, 2337/2169]     |
| トピカルグループサブリーダー |               | 關良輔/銀持尚輝<br>笠原寛史/本島巖 | [2201/2208]<br>[2203/2142] |
| 放射線担当          | 放射線担当         | 佐瀬卓也                 | [2083]                     |
| ECH            | 制御室連絡員 A      | 吉村泰夫                 | [2204]                     |
| NBI            | 制御室連絡員 B      | 津守克嘉 / 永岡賢一          | [2206/2177]                |
| ガスパフ・真空        | 電源系統把握        | C/A                  |                            |
| 低温             |               |                      |                            |
| 中央制御           |               | 大砂、小川 / 大砂、安井        | [2303,2099 / 2303,2306]    |
| 実験LAN          |               | 井上知幸/渡邊清政            | [2094/2149]                |
| データ処理          |               | 大砂、小川 / 大砂、安井        | [2303,2099 / 2303,2306]    |
| 放電洗浄           |               | 増崎貴                  | [2168]                     |
|                | 現場責任者         | 本体運転員責任者 (竹林)        |                            |
|                | 現場連絡員         | 本体運転員                |                            |
| [A] ガスパフ・真空    | 電源系統把握        | 長原一樹/中川翔/千村大樹        | [2479/2103/2111]           |
| 低温             |               | 大場恒輝                 | [2093]                     |
| [B] ガスパフ・真空    | 電源系統把握        | 土伏悌之/河合将照            | [2102/2107]                |
| 低温             |               | 田上裕之                 | [2095]                     |
| [C] ガスパフ・真空    | 電源系統把握        | 加藤ひろみ/田窪英法/柳原悠人      | [2108/2106/2105]           |
| 低温             |               | 鷹見重幸                 | [2089]                     |

### 非常時の連絡先

|                   |            |                  |
|-------------------|------------|------------------|
| 自衛消防隊 統括管理者:      | 榑原悟[2235]  | (代行者) 今川信作[2120] |
| 現場対応班長:           | 鈴木直之[2109] | (副) 渋谷真之[2294]   |
| 大型ヘリカル装置計画研究総主幹:  | 居田克巳[2200] |                  |
| 大型ヘリカル装置計画実験統括主幹: | 長壁正樹[2180] |                  |

|                        |              |
|------------------------|--------------|
| 防災センター:                | [1111]       |
| 制御室:                   | [2442, 2445] |
| 危機管理指揮本部 (専用電話: ポリコム): | [1002]       |