



# BQF-019

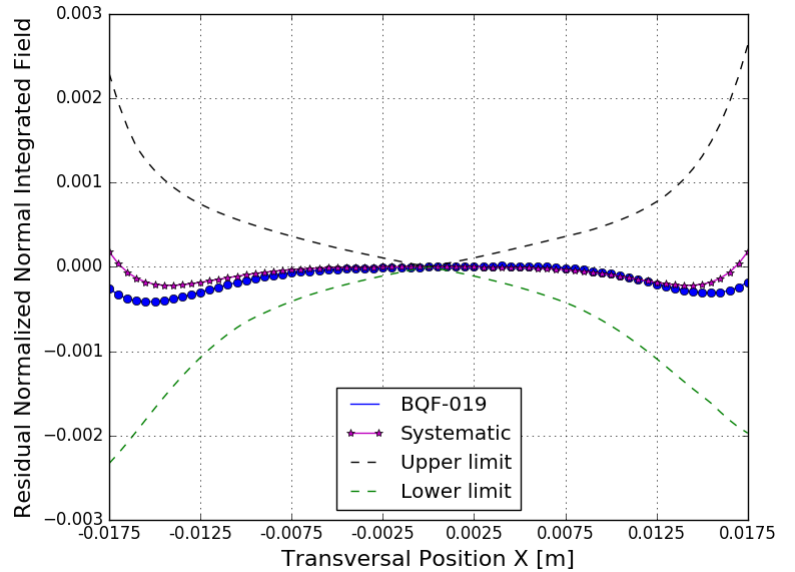
## BOOSTER MAGNET REPORT

### Results

|  |                               |
|--|-------------------------------|
| Date   | 08/04/2016                    |
| Hour   | 15:09:38                      |
| Temperature [°C]   | 21.2                          |
| Number of Measurements                                       | 17                            |
| Main Coil Current [A]  | $(130.0127 \pm 0.0005)$       |
| Trim Coil Current [A]  | $(0 \pm 0)$                   |
| Integrated Gradient [T]                                      | $(-4.82315 \pm 0.00001)$      |
| Magnet Center Offset X [ $\mu\text{m}$ ] - ( $< \pm 160.0$ ) | $(10.32 \pm 0.04)$            |
| Magnet Center Offset Y [ $\mu\text{m}$ ] - ( $< \pm 160.0$ ) | $(-30.96 \pm 0.06)$           |
| Roll [mrad] - ( $< \pm 0.8$ )                                | $(-5.10 \pm 0.03) \times E-1$ |

### Electric Parameters

|                                 |       |
|---------------------------------|-------|
| Inductance [mH]                 | 8.257 |
| Voltage [V]                     | 0.488 |
| Resistance [ $\text{m}\Omega$ ] | 48.80 |
| Main Coil Number of Turns       | 26.25 |



| n              | Normalized Normal Multipoles<br>$x=17.5 \text{ mm}$<br>[ $\text{T}\cdot\text{m}^{(2-n)}$ ] | Normalized Skew Multipoles<br>$x=17.5 \text{ mm}$<br>[ $\text{T}\cdot\text{m}^{(2-n)}$ ] |
|----------------|--|--|
| 1 (dipole)     | $(5.90 \pm 0.02) \times E-4$   | $(-1.769 \pm 0.004) \times E-3$  |
| 2 (quadrupole) | $(1.000000 \pm 0.000002)$  | $(-1.021 \pm 0.002) \times E-3$  |
| 3 (sextupole)  | $(6.9 \pm 0.2) \times E-5$   | $(-8.23 \pm 0.04) \times E-4$  |
| 4              | $(-1.7 \pm 0.3) \times E-5$  | $(6.5 \pm 0.4) \times E-5$   |
| 5              | $(-9 \pm 3) \times E-6$  | $(5.5 \pm 0.5) \times E-5$   |
| 6              | $(-1.209 \pm 0.003) \times E-3$  | $(-5 \pm 2) \times E-6$  |
| 7              | $(2.1 \pm 0.3) \times E-5$   | $(-2 \pm 3) \times E-6$  |
| 8              | $(-7 \pm 5) \times E-6$  | $(-3.7 \pm 0.4) \times E-5$  |
| 9              | $(-1.8 \pm 0.3) \times E-5$  | $(4 \pm 3) \times E-6$   |
| 10             | $(1.108 \pm 0.002) \times E-3$   | $(-1 \pm 3) \times E-6$  |
| 11             | $(-9.0 \pm 36.1) \times E-7$   | $(-2.7 \pm 0.6) \times E-5$  |
| 12             | $(6 \pm 6) \times E-6$   | $(8 \pm 3) \times E-6$   |
| 13             | $(-1.0 \pm 0.4) \times E-5$  | $(2.4 \pm 0.6) \times E-5$   |
| 14             | $(-10.0 \pm 0.5) \times E-5$   | $(-8.6 \pm 44.7) \times E-7$   |
| 15             | $(-1.3 \pm 0.4) \times E-5$  | $(-1.4 \pm 0.7) \times E-5$  |

