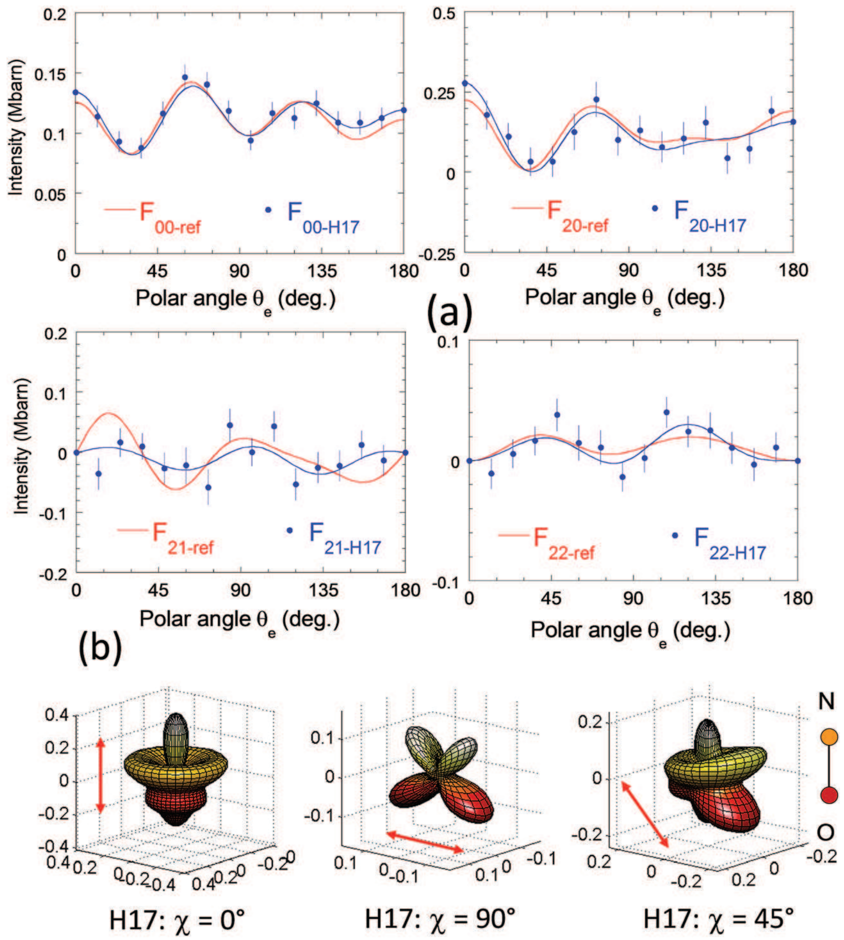

Fig. 5 (a) Measured $F_{00}(\theta_e)$, $F_{20}(\theta_e)$, $F_{21}(\theta_e)$, $F_{22}(\theta_e)$ functions for DPI induced by the harmonic H17 of the APT (blue dots, and Legendre polynomial line fit), compared with the $F_{LN}(\theta_e)$ measured at SOLEIL at $h\nu = 26.35$ eV (red line); both measurements are normalized to the corresponding MCSCI computed cross section for reaction eqn (5), such that the total cross sections $\int_0^{\pi} F_{00}(\theta_e)\sin(\theta_e)d\theta_e$ are identical; (b) $I(\theta_e,\phi_e)$ MFPADs for three meaningful orientations $\chi = 0°$, $90°$ featuring the parallel and perpendicular transitions, and $\chi = 45°$ involving their coherent superposition. The emission diagram in the MF results from the interference of the $l\lambda$ partial waves building up the electronic wave function in the continuum for the parallel and perpendicular transitions, described by the complex dipole matrix elements. The 3D plots are based on the Legendre polynomial fit of the F_{LN} functions.

i.e. H19, it leads to a strong electron emission anisotropy, favoring electron ejection along the molecular axis in the direction of the O end of the NO molecule.

These results open perspectives for time-resolved MFPAD studies at the attosecond time scale, with the goal to probe the evolution of *e.g.*, the electronic density in a transient excited molecular state through photoionization. At the same time, the fast and striking evolution of the MFPAD along the shape resonance shown in Fig. 6 illustrates the important role of the PI dynamics, *i.e.*, here