① pose <A2> = Arctg <A0>

appel XFFLOG

```
XFFATN: MOVE   TPREC1,D0
        CMP    #0,D0
        BCS    KM40
        MOVE.L A6,-(SP)
        BSR    XUNFL        → P/9
        MOVE.L A2,A0
        BSR    XARCTG
        BRA    KM29

KM40:   CMP    #$4000,2(A0)
        BEQ    KL73         → nul zéro
        MOVEM.L A0/A6,-(SP)
        BCLR   #7,(A0)
        BEQ    KM42
        BSR    KM40
        [illegible]          change le signe
        MOVEM.L (SP)+,A0/A1
        BSET   #7,2(A0)      remet le signe de x
        BSET   #7,2(A2)
        RTS

KM42:   BSR    XPOSF1
        MOVE.L A2,A1
        MOVE.L (SP)+,A0
        BSR    XFLCMP
        BLE    KM43
        BSR    XFLINV
        MOVE.L A2,A1
        LEA    RISUR2,A0
        BSR    XFLSUB
        BRA    KL860
```

1

$x \leq \frac{1}{2}$

$1/x$

$\frac{\pi}{2} - Arctg\left(\frac{1}{x}\right)$

x

(1) Pose <A2> = ATN(<A0>) calcul par polynome cas $\frac{\pi}{4}$ calculé

XFFATN3: MOVE TPREC,D0 ok ⊗ ← calcul par série ou polynome
CMP #43,D0
BGT XFFATN

→ calcul par série

XFFATN1: LEA TCONSFL1,A1 1
MOVE.L (A0),-(SP) val |<A0>|
BCLR #7,2(A0)

BSR XFLCMP
MOVE.L (SP)+,A2
MOVEM.L A2/A2,(A0) remet le signe
BLE
BMI XFFATN2
BEQ XFFATN2 → calcule atn(x) $x \in [-1,1]$ par polynome
MOVE.L A6,-(SP)
BSR XFLINV <A0> = 1/x
MOVE.L A2,A0
BSR XFFATN2 $y = atn(\frac{1}{x})$ $[-\frac{\pi}{4}, \frac{\pi}{4}]$
0 → $\frac{\pi}{2}$ $(\frac{\pi}{2} - |y|)\,sgn(y)$

⊗ → ML800: ADDQ #1,(A2) y/2
BSR XFFDV2 ⊗

BCLR #7,(A2) |y|
ML801: BEQ ML80 → y ≥ 0
ML802: BSR ML82 calcule $\frac{\pi}{2} - |y| = <A2>$
ML801: CHGS ← ADDQ #2,A2 change le signe
← SUBQ #2,A2
BRA KL860

ML80: BSR ML82
BRA KL860

(SP) ML82: MOVE.L A2,A1 entrée $<A2> = |y|/2$
MOVE #3,D1 pose $<A2> = \frac{\pi}{2} - f$
BSR LB35C
ADDQ #2,A0 A0 = T/4
BSR XFLSUB $\frac{\pi}{4} - \frac{|y|}{2}$
SUBQ #1,(A2) $\frac{\pi}{2} - |y|$
RTS

utilisés par angle(x,y) →

(1)

pour en litre $\langle A_2 \rangle = Atn(\langle \overset{x}{A_0} \rangle)$ $x \in [-1, 1]$

calcul par polynome

```
XFFATN2: MOVE.L  A6,-(SP)
~~XFFATN2:~~ LEA   DFATN,A1
         BSR   ML70
         BRA   KL860
```