

① pose $\langle A2 \rangle = \text{Arctg} \langle A0 \rangle$

~~2444 XFFLAG~~

```

XFFATN: MOVE  TPREC1, D0
        CMP   # 0, D0
        BCS   KM40
        MOVE.L A6, -(SP)
        BSR   XUNFL           → 1/9
        MOVE.L A2, A0
        BSR   XARCTG
        BRA   KM29
  
```

```

KM40:  CMP   # $4000, 2(A0)
        BEQ   KL73           → mal zéro
        MOVEM.L A0/A6, -(SP)
        BCLR  #7, 2(A0)
        BEQ   KM42
        BSR   KM40
        MOVEM.L A0/A6, -(SP)
        BSR   XFL CLR
        MOVEM.L (SP)+, A0/A1
        BSET  #7, 2(A0)      remet les signes de x
        BSET  #7, 2(A2)
        RTS
  
```

→ mal zéro

change le signe

remet les signes de x

```

KM42:  BSR   XPOSF1         1
        MOVE.L A2, A1
        MOVE.L (SP)+, A0
  
```

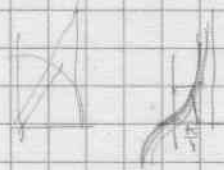
```


        BSR   XFLCMP
        BCLR  #7, 2(A0)
        BSR   XFL INV
        MOVE.L A2, A1
        LEA  RISUR2, A0
        BSR   XFL SUB
        BRA  KL860
      
  
```

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

~~$\frac{1}{2}$~~

~~$\frac{\pi}{2} - \text{Arctg}(\frac{1}{x})$~~



(1)

pose $\langle A2 \rangle = \text{ATN}(\langle A0 \rangle)$

calcul on polynome
cas $\frac{\pi}{4}$ calculé

```

XFFATN3: MOVE TPREC, D0
          CMP #43, D0
          BGT XFFATN
  
```

← calcul par série ou polynome

→ calcul par série

```

XFFATN1: LEA TCONSFL1, A1
          MOVE.L (A0), -(SP)
          BCLR #7, (A0)
  
```

1
met $|\langle A0 \rangle|$

```

BSR XFLCMP
MOVE.L (-(SP)+, A2
MOVEM.L A2/A2, (A0)
  
```

remet le signe

```

BLE EMI XFFATN2
BEQ XFFATN2
MOVE.L A6, -(SP)
  
```

} → calcule $\text{atn}(x)$ $x \in [-1, 1]$
par polynome

```

BSR XFLINV
MOVE.L A2, A0
BSR XFFATN2
  
```

$\langle A2 \rangle = 1/x$

```

ML800: ADDQ #1, (A2)
        BSR XFFDV2
  
```

$y = \text{atn}(1/x)$ $[-\frac{\pi}{4}, \frac{\pi}{4}]$
 $0 \rightarrow \frac{\pi}{2}$ $(\frac{\pi}{2} - |y|) \text{ sign}(y)$

```

ML801: BCLR #7, (A2)
        BSR ML80
        ML802: BSR ML82
        ML801: ← ADDQ #2, A2
        ← SUBQ #2, A2
        BRA KL860
  
```

$|y|$
 $\rightarrow y \geq 0$
calcule $\frac{\pi}{2} - |y| - \langle A2 \rangle$
change le signe

```

ML80: BSR ML82
      BRA KL860
  
```

(SP)

```

ML82: MOVE.L A2, A1
      MOVE #3, D4
      BSR LBSCL
      ADDQ #2, A0
      BSR XFLSUB
      SUBQ #1, (A2)
      RTS
  
```

entree $\langle A2 \rangle = \beta/2$
pose $\langle A2 \rangle = \frac{\pi}{2} - \beta$

$A0 = \frac{\pi}{4}$
 $\frac{\pi}{4} - \frac{\pi}{2}$
 $\frac{\pi}{2} - |y|$

①

pose en libe $\langle A_2 \rangle = \text{Atm}(\langle A_0 \rangle^x)$ $x \in [-1, 1]$
calcul par polynome

XFFATN2: MOVE.L A6, -(SP)

~~XFFATN2~~: LEA DFATN, A1

~~BBR~~ ML70

BRA KL860