Marco's screen saver — Marco's screen saver — Marco's screen saver — Marco's screen saver — Marco's screen saver — Marco's screen saver — Marco's screen saver — Marco's screen saver — Marco's screen saver — Marco's screen saver — Marco's screen saver — . . .

database on

FRAGMENTATION FUNCTIONS

Rainer Jakob (Universität Wuppertal)
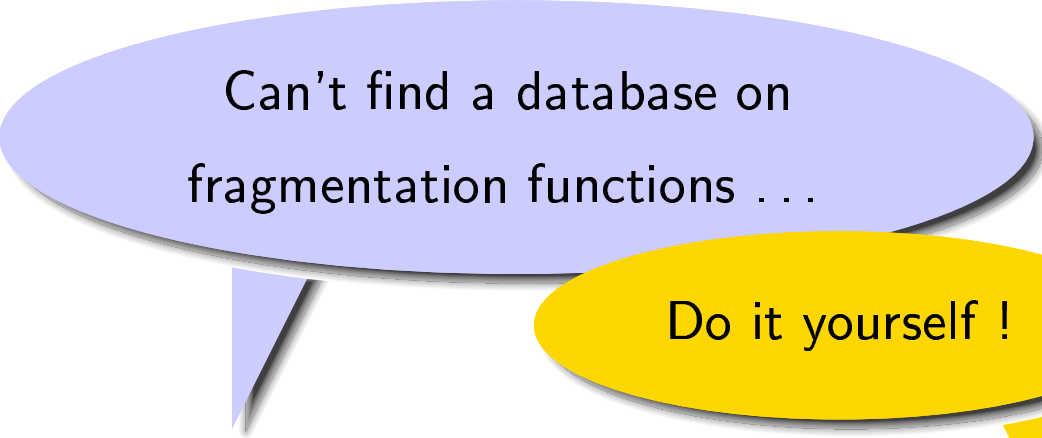
Marco Radici (Università di Pavia & INFN Pavia)

RJ

DESY Zeuthen — July 2001

the database started in *summer 1996* ...

> for a model calculations of PDFs and FFs we
> (Piet Mulders, Joao Rodrigues and RJ) looked for a
> comparison of our findings with data ...

there's a lot of very useful information about PDFs
and their <u>parametrizations</u> available on the net, e.g.:

- PDFLIB   (library package in the CERNLIB)

- DURHAM HEPDATA

- CTEQ metapage

but where is this kind of information for the
Fragmentation Functions ?

Can't find a database on
fragmentation functions ...

Do it yourself !

so ...

if it really doesn't exist ... why not do it ourselves ???

in fall 1996 there was a Web-page
installed at NIKHEF as an
extended list of references

🔴 in January 1997 the 'database' became an official project of the TMR network

"Hadronic Physics with
High Energy Electromagnetic Probes"

🔴 in July 1999 it moved to Pavia and is maintained by **Marco Radici** since then

🔴 since September 2000 it is an official project of the TMR network

"Electron Scattering of Confined Partons"

🔴 in summer / autumn 2001 the datbase will receive a major update . . . . . . we hope

DESY Zeuthen — July 2001

🔵 in 1996 there simply was not much info available to be collected

⇒ so the 'database' *de facto* was (and still is) merely an extended *'list of references'* with some decorating text and some colored pics around

🔵 since then the situation changed considerably:

> three NLO analyses – at least –
>
> corresponding parametrizations

> new and more precise (semi-inclusive)
>
> experimental data

> increased interest in 'exotic' FF
>
> in connnection with transversity
>
> • time-reversal odd FF
>
> • interference FF
>
> • spin-1 FF

DESY Zeuthen — July 2001

an up-dated future version of the database could serve the following purposes:

1. have an up-dated text
   and $<<$*lots of*$>>$ colorful pics

2. give easy access to the listed references
   (incl. links to SPIRES and E-journals)

3. give easy access to available
   global parametrizations
   in form of subroutines
   and/or automatized I/O ('slotmachine')

RJ

DESY Zeuthen — July 2001

🔴 the database should contain - at least - three parts
according to the identified purposes
and may have a structure like this:

main index

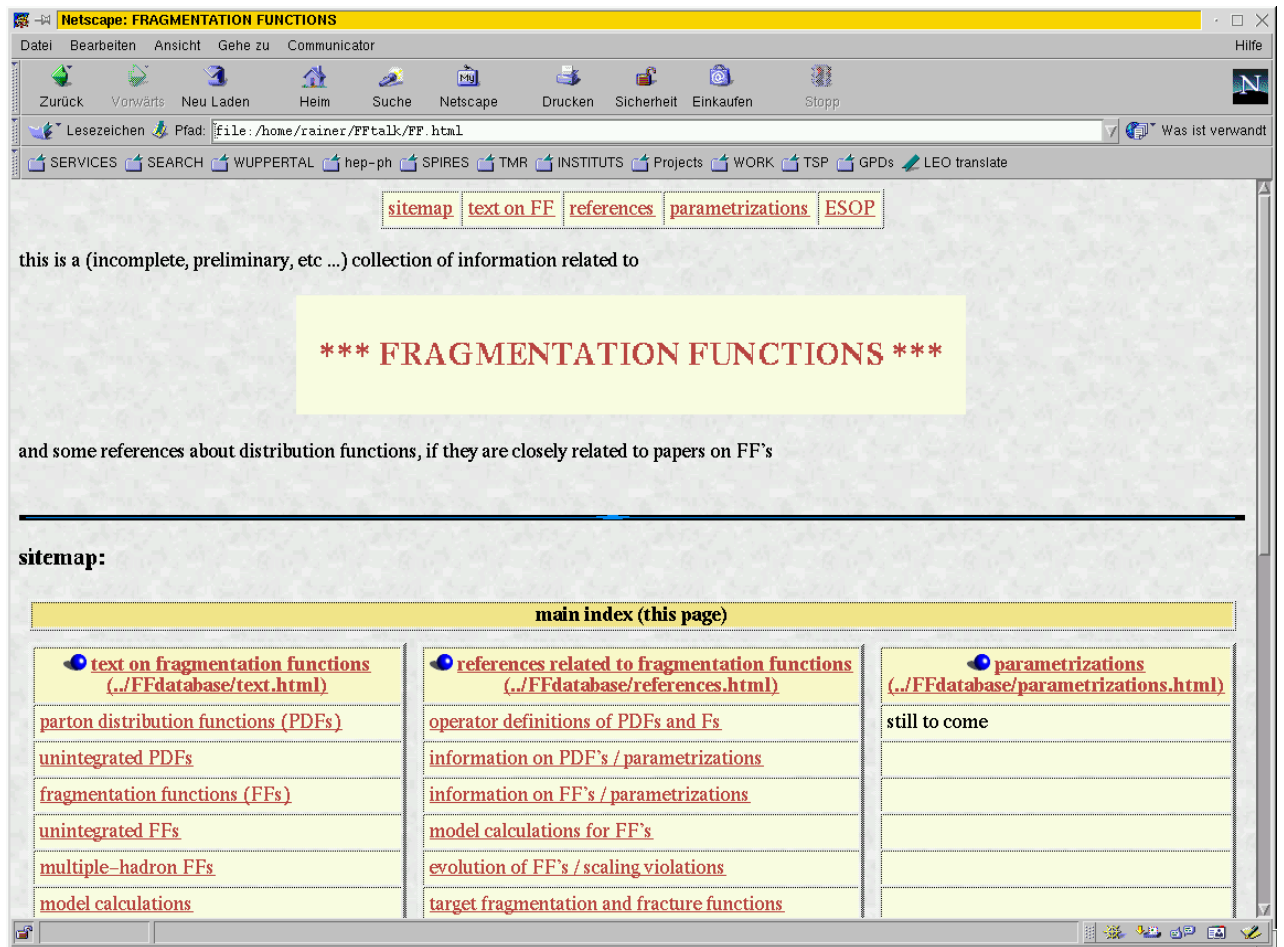| text & pics	references	parametr's
sub-items	sub-items	sub-items
. . .	. . .	. . .
. . .	. . .	. . .
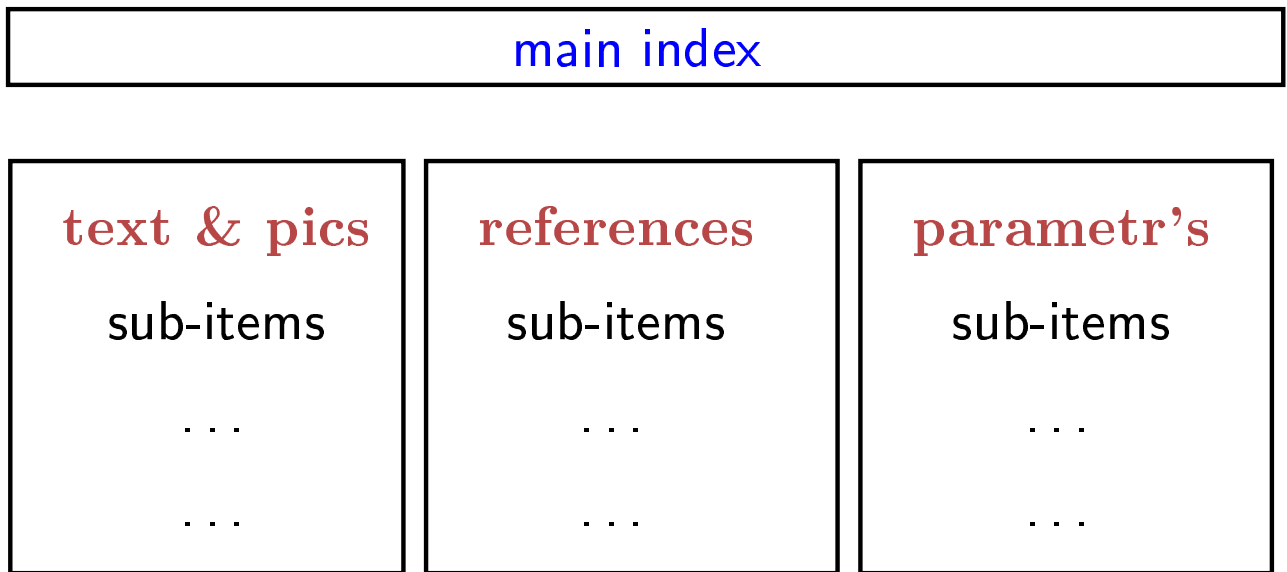
it should look nice and colorful, and have some tools
for easy navigation

$\Rightarrow$ it could look like the following proposal

proposal:

have a look at:

http://www.pv.infn.it/~radici/FFdatabase/

RJ

DESY Zeuthen — July 2001

still there is lots to do:

shopping list:

2 ℓ milk, 6 eggs
bread & butter

- polarized FF

- fracture functions

- fragmentation in Monte Carlos

- global parametrizations

program code, 'slotmachine'

- gluon fragmentation

- experimental data ???
(hmmm, may be not, ...DURHAM covers this)

- heavy quark FF

RJ

so, you are invited . . .

invitation

to participate and/or contribute to the

database on

FRAGMENTATION FUNCTIONS

http://www.pv.infn.it/~radici/FFdatabase/

contact:

Marco Radici
<radici@pv.infn.it>

or Rainer Jakob
<rainer@theorie.physik.uni-wuppertal.de>

DESY Zeuthen — July 2001